

METHUEN'S HANDBOOKS
OF ARCHAEOLOGY

GREEK COINS

METHUEN'S HANDBOOKS
OF ARCHAEOLOGY

ROMAN COINS
by Harold Mattingly

ENGLISH COINS
by George C. Brooke

GREEK COINS
by Charles Seltman

GREEK COINS

*A History of Metallic Currency and Coinage
down to the Fall of the Hellenistic Kingdoms*

by

CHARLES SELTMAN

LITT. D.

*Sometime Fellow of Queens' College and
Lecturer in Classics in the University of Cambridge*



METHUEN & CO. LTD., LONDON

36 Essex Street, Strand, W.C.2

First Published February 2nd, 1933

2.1

CATALOGUE NO. 4851/U

PRINTED IN GREAT BRITAIN
BY BRADFORD AND DICKENS, DRAYTON HOUSE, LONDON, W.C.1
AND BOUND BY JAMES BURN AND CO. LTD., ESHER

PREFACE

To Greek coins, as to most subjects, the lines of approach are many. A writer might embark on a number of isolated topics, discoursing in a chapter here upon metrology, in one there upon art; touching in a third on religious coin-types, in a fourth on portraiture; there might be one on League-coinage and another on the imitations made by barbarians. Or again a purely geographical approach might be adopted entailing a description in sequence from West to East of the issues of states and principalities.

The first method would be easy, but bad; the second has already been employed by B. V. Head, whose *Historia Numorum* must be in the hands of every student of Greek numismatics; and any one who should seek to repeat Head's method could do no more than abridge and emend—a thankless task. Thus it has seemed best to adopt for this book the historical narrative form.

In employing this method considerable emphasis has naturally fallen upon the coins of Athens and Syracuse and on the issues of Philip and Alexander; and these happen to be precisely the coinages on which *Historia Numorum* is most obviously out of date, since in these fields the researches of several scholars have in recent years brought much fresh evidence to light.

In general, where statements in the following pages conflict with statements in *Historia Numorum* it may be assumed that the new views are based upon the more recent studies of experts. Apart from this the reader must turn to Head's great work for information concerning the coins of the many lesser mints and minor reigns which could not be included in this small volume.

To compass within fourteen chapters the numismatic history of seven centuries, to range within this time limit from Carthage to Kertch and from Yorkshire to Jhelum has been a task which has called for the exercise of rigorous selection and self-control.

One satisfaction the student of Greek coins can always derive from his researches: he may move with pleasure in two interesting worlds, the artistic and the historical. He may cultivate his taste by the study and criticism of some of the most excellent miniature works of art that exist, and he may develop those critical faculties which grow with the careful appraisal of

documents. In the happy phrase of Sir George Macdonald, "coins were public documents, a characteristic that distinguishes them from vases, gems and statues."

This at least is certain; the study of their coins must increase our regard for the Greeks as artists, for the Athenians as sane economists, and for Alexander as the most practical idealist in history.

The choice has lain between giving weights in *grammes* or in grains. I have preferred the former as being more widely employed. Readers accustomed to think in grains will naturally translate with the aid of the little British Museum publication, *Grains and Grammes, a Table of Equivalents for the Use of Numismatists* (London, 1920).

The spelling of Greek names is inevitably inconsistent. Generally I have conformed to the spelling adopted in *Historia Numorum*, but have occasionally permitted myself a Greek form, for example "Acragas," "Agrigentine," will both be found.

There remains the pleasant obligation of thanking those who have readily supplied casts for the illustrations and those who have made helpful suggestions on a number of points. I owe plaster casts to the kindness of Dr K. Regling (Berlin), Mr D. L. Caskey (Boston), Monsieur V. Tourneur (Brussels), Dr A. H. Lloyd (Cambridge, McClean Collection), Dr G. Galster (Copenhagen), the Director of the British Museum, Mr H. Mattingly, and Mr E. S. G. Robinson (London), Dr M. Bernhart (Munich), Mr S. P. Noe (New York), Mr E. T. Leeds (Oxford), Monsieur J. Babelon (Paris); also to Professor A. B. Cook, Count Chandon de Briailles, Captain E. G. S. Churchill, Mrs Emmet, Mr Empedocles, Mr C. H. Greene, Mr Gulbenkian, Monsieur R. Jameson, Dr A. H. Lloyd, Mr H. Miller, Count H. de Nanteuil, Mr E. T. Newell, Dr N. A. Petsalis, Mr A. Sangorski, and Mr W. H. Woodward.

Professor A. B. Cook and Professor A. D. Nock have read through the manuscript and Mr M. P. Charlesworth the proofs. I am indebted to them all for valuable help and suggestions. But for the aid of my wife this book would be even less fitted than it is to serve the purpose that it seeks to serve.

C. T. S.

PREFACE TO THE SECOND EDITION

OVER twenty years have elapsed since this handbook was first published, and during those two decades a very great deal has been written on Greek numismatics, which remains one of the most vivid, progressive and accurate of archaeological subjects. The evidence for this mass of fresh numismatic material is available in the SUPPLEMENT (beginning on page xxii) to my original "Select Bibliography." Alongside of all this creative work there has, however, been some attempted demolition and none would deny that such action is desirable if it is justified. There are, indeed, few scholars who have not found it necessary, after the passage of years, to demolish a little of their own earlier work. But there have been some attempts—like a recent one purporting to "debunk" Pheidon of Argos¹—which prove, on careful examination, to be a little tiresome by reason of their tenuity. Since, however, the thoughtless too easily take "the last word" to be the finally true word, such attempted demolitions have had to be taken into consideration in the preparation of this Second Edition. For this reason I am deeply grateful to Messrs Methuen for allowing me to rewrite Chapters II, III and IV, as well as to make some alterations in other parts of the book. It has, indeed, been my endeavour by means of certain changes in the text to give expression to a variety of fresh theories about Greek coins, and to refer to recent discoveries, although I have sometimes felt the necessity of recording my disagreement with certain new theories which have not always been sufficiently chewed over.

For my fourth chapter I entertained, at one time, hopes of obtaining fresh light on early Athenian coinage and history from a recent work by Mr Hignett². Unfortunately that author goes far to invest much with a cloak of unreality, doubting, perversely, Aristotle's authorship of *The Constitution of the Athenians*, and shirking all concern with coinage on the plea that numismatists are not unanimous, while he stresses the disunity existing among constitutional historians. On the topic of sixth-century Athenian coinage some of my former views have been changed,

¹ W. L. Brown in *N.C.* 1950, 177 ff.

² C. Hignett, *A History of the Athenian Constitution to the end of the fifth century B.C.* (1952).

as indicated in a short paper¹ published some years since, and my revised opinions are naturally given here. Among modern historical accounts of sixth-century Athens I still prefer the one which I preferred twenty years ago—the story as told by Sir Frank Adcock².

The fact that I have employed ways of spelling Greek names similar to those used in my first edition is not to be taken as an indication that I still approve of all of them. Furthermore, it has been convenient to retain some of the admittedly old-fashioned transliterations of certain Semitic words. In general some obsolete terms like "device" have been, where possible, corrected. There is one set of alterations which it has not been possible to make. It concerns the *Key to Plates*, pp. 287 to 311. Many coins, in private possession in 1933 when my first edition appeared, have moved—some to other collections and some into Museums. To trace all these would have been the work of years and would still have been inconclusive. Therefore the names of the collections have been left as they were in 1933. However, the reader may note that anything marked "Lloyd" is now in the British Museum, and that everything marked "Berlin" has been transferred to Moscow where it is not available for study. The following collections are entirely or largely dispersed:—Churchill, Cook, Greene, Jameson, Locker-Lampson, Sangorski, Seltman, Weber, Woodward.

Gratitude is especially due to two friends who have co-operated with me in the production of this Second Edition. Henry St John Hart, Fellow of Queens' College, has made various suggestions and has read the proofs. Monica Beament has helped both with the difficult task of cross-references rearranged, and with an index partly reconstructed to conform to three rewritten chapters.

CHARLES SELTMAN

CAMBRIDGE

June 1954

¹ *N.C.*, 1946

² *C.A.H.* iv, Chapters II and III.

CONTENTS

	PAGE
PREFACE	v
ABBREVIATIONS	xiv
SELECT BIBLIOGRAPHY	xv

CHAPTER I

CURRENCY AND MONEY	i
------------------------------	---

CHAPTER II

THE INVENTION OF COINAGE

A. Dates and Traditions	13
B. Monetary Technique	21
C. The Royal Lydian Coinage	24
D. The Coinage of the Ionian Greeks	26

CHAPTER III

THE EARLY SILVER COINAGE OF GREECE

A. Obols and Obols	33
B. Aegina	38
C. Corinth	39
D. Islands and Coasts	40

CHAPTER IV

ATHENS; FROM SOLON TO CLEISTHENES

A. The Earliest Coins	43
B. Solon's Reforms	44
C. The Oligarchy	46
D. Athens under Pisistratus	49
E. The Interregnum	50
F. Athens under Pisistratus and Hippias	51
G. The Restored Oligarchy	52
H. The Neighbours of Athens	53
I. Cleisthenes	58

CHAPTER V
EAST AND WEST

	PAGE
A. The Royal Lydian Coinage	60
B. The Imperial Persian Coinage	62
C. The Northern Aegean Coast	64
D. The Coinage of Sicily	71
E. Magna Graecia	76
F. Cyrene	80

CHAPTER VI
COINAGE DURING THE PERSIAN WARS

A. Euboea	83
B. The Chersonese	85
C. The Ionians	87
D. Thessaly	89
E. The Islands	90
F. Athens; Marathon to Salamis	91
G. Peloponnesus	95
H. Delphi	98
I. Sicily	99

CHAPTER VII
THE ATHENIAN EMPIRE

A. Olympic Art	106
B. Themistocles	107
C. Athens	108
D. Silver in the Athenian Empire	110
E. Electrum in the Athenian Empire	112
F. Athenian Colonies	114

CHAPTER VIII
THE WESTERN GREEKS DURING THE FIFTH CENTURY

A. Corinth and her Colonies	117
B. The Greeks of Italy	118
C. Etruria	123
D. Sicily	124
E. The Fall of Athens	137

CHAPTER IX

COINAGE IN THE NORTH AND EAST

	PAGE
A. Macedon	139
B. Thrace	141
C. Asia Minor	146
D. Lycia and Cyprus	152
E. Philistia	154

CHAPTER X

THE HEGEMONY OF THEBES

A. Boeotia	156
B. Phocis and Locris	159
C. Thessaly	160
D. Peloponnesus	162
E. Crete	169
F. The Cyclades	174

CHAPTER XI

MERCHANTS AND MERCENARIES

A. The Revival of Athens	177
B. The Shores of the Euxine	179
C. Cyrenaica	182
D. Phoenicia	184
E. Eastern Military Issues	184
F. Western Military Issues	186
G. Syracuse; Civic Issues	188
H. New-Syracuse	191
I. Tarentum	194
J. The Far West	196

CHAPTER XII

PHILIP AND ALEXANDER

A. The Chalcidian League	198
B. Philip of Macedon	199
C. Alexander	203
D. The Mints of Alexander	
I. Europe	207
II. Anatolia	208
III. Cilicia	208
IV. Syria	209
V. Cyprus	209
VI. Phoenicia	210
VII. Babylon	211
VIII. Alexandria	212

CHAPTER XIII

THE MACEDONIAN AND SELEUCID EMPIRES

	PAGE
A. The House of Antigonos	219
B. The House of Seleucus	227
C. Bactria and India	233
D. Parthia	236
E. The Kingdoms on the Euxine	237
F. Pergamum	238

CHAPTER XIV

THE EGYPTIAN AND SICILIAN KINGDOMS

A. The House of Ptolemy	240
B. The Autocrats of Sicily	245
C. Carthage	249
D. Italy	250

CHAPTER XV

THE LEAGUES AND FREE CITIES

A. Rhodes	252
B. The Aetolian League	254
C. The Achaean League	255
D. Sparta	256
E. Athens	257
EPILOGUE	265

INDEX	267
-----------------	-----

KEY TO PLATES	287
-------------------------	-----

PLATES I TO 64

ILLUSTRATIONS IN THE TEXT

FIG.	PAGE
1. The two sides of a bronze talent from Mycenae	6
2. Clay tablet from the magazines at Cnossus	10
3. Diagram showing Greek method of coining	21
4. Diagram explaining interlinking of obverse and reverse dies .	23
5. Signet of Thersis	28
6. Iron spits and bar from the Argive Heraeum	35
6a. Pegasus on a Protocorinthian vase	39
7. Shield-signs on Attic sixth-century vases	47
8. Coinages of certain states in the Athenian Empire	151
9. The twenty principal Alexander mints operating during his life-time	217

MAPS

A. Approximate distribution of ancient coin-standards about 500 B.C.	81
B. Approximate distribution of ancient coin-standards about 400 B.C.	175
C. The mints of Alexander's empire	216
D. Approximate boundaries of the Hellenistic kingdoms in the second half of the third century	220

ABBREVIATIONS

Æ	Bronze.
Ὶ	Silver.
Ί	Gold.
A.J.N.	<i>American Journal of Numismatics.</i>
Aristoph.	Aristophanes.
Aristot.	Aristotle.
Ath. Pol.	' <i>Athenaiōn Politeia.</i> '
B.M.C.	<i>British Museum Catalogue.</i>
C.A.H.	<i>Cambridge Ancient History.</i>
Catal.	Catalogue.
Diod. Sic.	Diodorus Siculus.
Diog. Laert.	Diogenes Laertius.
EL.	Electrum.
F.H.G.	<i>Fragmenta Historicorum Graecorum.</i>
g.	grammes.
Hdt.	Herodotus.
H.N.	<i>Historia Numorum</i> , 2nd ed. (B. V. Head.)
I.G.	<i>Inscriptiones Graecae.</i>
Jahrb.	<i>Jahrbuch des deutschen archäologischen Instituts.</i>
J.H.S.	<i>Journal of Hellenic Studies.</i>
J.I.A.N.	<i>Journal International d'Archéologie Numismatique.</i>
J.R.S.	<i>Journal of Roman Studies.</i>
N.C.	<i>Numismatic Chronicle.</i>
N.H.	<i>Naturalis Historia</i> (Pliny).
N.N.M.	<i>Numismatic Notes and Monographs.</i>
Nom.	<i>Nomisma.</i>
Obv.	Obverse.
Oecon.	<i>Oeconomica.</i>
Onom.	<i>Onomasticon.</i>
Pausan.	Pausanias.
Plut.	Plutarch.
Polyb.	Polybius.
R.E.	<i>Realencyclopädie der classischen Altertumswissenschaft</i> (Pauly-Wissowa-Kroll).
Rev.	Reverse.
Rev. Num.	<i>Revue Numismatique.</i>
Thuc.	Thucydides.
Traité.	<i>Traité des Monnaies Grecques et Romaines.</i> (E. Babelon.)
Z.f.N.	<i>Zeitschrift für Numismatik.</i>

SELECT BIBLIOGRAPHY

A. GENERAL WORKS

- B. V. HEAD, assisted by G. F. HILL, GEORGE MACDONALD and W. WROTH. *Historia Numorum*. 2nd ed. Oxford, 1911.
E. BABELON. *Traité des Monnaies Grecques et Romaines*. Paris, 1901, etc.

B. PERIODICALS

- American Journal of Numismatics*. New York.
Journal of Hellenic Studies. London.
Journal International d'Archéologie Numismatique. Athens.
Journal of Roman Studies. London.
Numismatic Chronicle. London.
Numismatic Notes and Monographs. New York.
Numismatische Zeitschrift. Vienna.
Revue Numismatique. Paris.
Rivista Italiana di Numismatica. Rome.
Zeitschrift für Numismatik. Berlin.

C. WORKS ON SPECIAL ASPECTS

(i) ART

- G. F. HILL. *Select Greek Coins*. Paris, 1927.
K. REGLING. *Die Antike Münze als Kunstwerk*. Berlin, 1924.
F. IMHOOF-BLUMER. *Porträtköpfe auf Antiken Münzen*. Leipzig, 1885.
P. GARDNER. *Types of Greek Coins*. Cambridge, 1883.

(ii) COIN BLAZONS

- G. MACDONALD. *Coin Types*. Glasgow, 1905.

(iii) HISTORY

- Cambridge Ancient History*. Vols. iv ff.; Plates Vol. i ff.
G. F. HILL. *Historical Greek Coins*. London, 1906.
P. GARDNER. *History of Ancient Coinage*. Oxford, 1918.

(iv) HOARDS

- S. P. NOE. A Bibliography of Greek Coin Hoards. *N.N.M.* 25.
C. T. SELTMAN. *The Year's Work in Classical Studies*. 1925 and 1931.

(v) MAGISTRATES

- R. MÜNSTERBERG. *Die Beamtennamen auf den griechischen Münzen*.
Numismatische Zeitschrift. Vienna, 1914.

(vi) METROLOGY

- O. VIEDEBANDT. *Antike Gewichtsnormen u. Münzfüsse*. Berlin, 1923.
 W. RIDGEWAY. *Origin of Metallic Currency and Weight Standards*.
 Cambridge, 1892.
 E. PERNICE. *Griechische Gewichte*. Berlin, 1894.
 G. F. HILL. The Frequency Table. *N.C.* 1924.
 H. T. WADE-GERY. Ratio of Gold to Silver in the Peloponnesian War.
N.C. 1930.
 H. SCHMITZ. *Gesetz d. Stadt Olbia zum Schutze ihres Silbergeldes*.
 Freiburg, 1925.

D. WORKS DEALING WITH PARTICULAR MINTS
REIGNS OR REGIONS

(These lists are to be regarded in the main as supplementary to the bibliographical notes given in *H.N.* at the heads of regions. The titles of shorter articles are occasionally abbreviated.)

* means that the book or article is a conspectus.

** means that it is a complete Corpus.

(i) ITALY

- *M. P. VLASTO. *Monnaies d'Or de Tarente*. *J.I.A.N.* 1899.
 **— TAPAΣ OIKISTHΣ. *N.N.M.* 15.
 **— Alexander, Son of Neoptolemos. *N.C.* 1926.
 — Tarentine Horsemen. *N.C.* 1930.
 S. W. GROSE. *Primitiae Heracliensis*. *N.C.* 1917.
 **S. P. NOE. *Metapontum*. *N.N.M.* 32 and 47.
 E. J. SELTMAN. *Thurii (Symbols and Letters)*. *J.I.A.N.* 1913.
 E. S. G. ROBINSON. *Coins of Thurii*. *N.C.* 1927.
 S. W. GROSE. *Croton*. *N.C.* 1915.
 **K. REGLING. *Terina* (66th Winckelmannsfest 1906).
 A. J. EVANS. *Terina (Artists' Signatures)*. *N.C.* 1912.
 C. T. SELTMAN. *Agathocles and Magna Graecia*. *N.C.* 1912.

(ii) SICILY

- G. F. HILL. *Coins of Ancient Sicily*. London, 1903.
 **F. GUTMANN and W. SCHWABACHER. *Tetradrachmen und Didrachmen von Himera*. Munich, 1929.
 C. H. DODD. *The Samians at Zancle-Messana*. *J.H.S.* 1908.
 *H. E. GIELOW. *Silberprägung von Dankle-Messana*. Munich, 1931.
 **P. LEDERER. *Tetradrachmen von Segesta*. Munich, 1910.
 **W. SCHWABACHER. *Tetradrachmen von Selinunt*. Munich, 1925.
 **E. BOEHRINGER. *Münzen von Syrakus*. Berlin, 1929.
 **L. TUDEER. *Tetradrachmen von Syrakus*. *Z.f.N.* 30 (1913).
 **A. GALLATIN. *Syracusan Dekadrachms of the Euainetos Type*. Harvard, 1930.

- **G. DE CICCIO. *Aurei Siracusani di Cimone e Eveneto*. Naples, 1922.
- **K. REGLING. *Dekadrachmen des Kimon* (Amtl. Berichte aus den koeniglichen Kunstsammlungen). 1914.
- A. H. LLOYD. "Ziz," On Siculo-Punic Coins. *N.C.* 1925.
- A Hoard of Greek and Siculo-Punic Coins. *N.C.* 1925.
- A Find of Sicilian Coins. *N.C.* 1925.

(iii) MACEDON AND THE ALEXANDER COINAGE

- J. N. SVORONOS. *L'Hellénisme Primitif de la Macédoine*. *J.I.A.N.* 1918/19.
- K. REGLING. Mende. *Z.f.N.* 34 (1923).
- **S. P. NOE. The Mende Hoard. *N.N.M.* 27.
- D. M. ROBINSON. *Excavations at Olynthus, Part III, The Coins found in 1928; Baltimore, 1931: Part V, The Coins found in 1931; Baltimore, 1933.*
- **K. REGLING. Amphipolis. *Z.f.N.* 33 (1921).
- **H. GAEBLER. *Münzen von Stagira* (Sitzungsber. d. preuss. Akad. d. Wiss., 1930).
- A. B. WEST. Diplomacy of Philip II illustrated by Coins. *N.C.* 1923.
- *E. T. NEWELL. *Reattribution of Certain Tetradrachms of Alexander*. New York, 1912.
- *— Demanhur Hoard. *N.N.M.* 19.
- Alexander Hoards. *N.N.M.* 3, 21, 39.
- **— Tarsos under Alexander. *A.J.N.* 52 (1918).
- **— Myriandros—Alexandria Kat'Isson. *A.J.N.* 53 (1919).
- *— Cypriote Alexanders. *N.C.* 1915.
- Nicocles King of Paphos. *N.C.* 1919.
- **— *Alexander Coinage of Sidon and Ake*. Yale, 1916.
- **— Alexandrine Coinage of Sinope. *A.J.N.* 52 (1918).
- P. LEDERER. Ein Goldstater Alexanders. *Z.f.N.* 33 (1922).
- G. F. HILL. Alexander and the Persian Lion-Gryphon. *J.H.S.* 1923.
- G. P. OIKONOMOS. Coinage of Cassander. *Archaiologikon Deltion*, 1918.
- **E. T. NEWELL. *The Coinages of Demetrius Poliorcetes*. Oxford, 1927.
- *A. MAMROTH. Silbermünzen d. Philip V von Makedonien. *Z.f.N.* 40 (1930).
- *— Silbermünzen d. Perseus. *Z.f.N.* 38 (1928).
- A. J. REINACH. Philip Andriscus. *J.I.A.N.* 1913.
- *H. GAEBLER. *Die Antiken Münzen Nord-Griechenlands*. Vol. III, Part i. Berlin, 1912.
- Zur Münzkunde Makedoniens. *Z.f.N.* 36 (1926); 37 (1927); 39 (1929).

(iv) THRACE

- *M. L. STRACK. *Die Antiken Münzen Nord-Griechenlands*. Vol. II, Parti, Berlin, 1912.
 H. VON FRITZE. Münzen von Ainos. *Nom.* IV.
 — Münzen von Abdera. *Nom.* III.
 *A. B. WEST. Coins from the Thracian Coast. *N.N.M.* 40.
 **C. T. SELTMAN. *Athens, its History and Coinage*. Ch. XVII (for Chersonese). Cambridge, 1924.
 E. H. MINNS. *Scythians and Greeks*. Cambridge, 1913.

(v) THESSALY TO AETOLIA

- F. HERMANN. Thessalische Münzunion im 5ten Jahrhundert. *Z.f.N.* 33 (1921).
 *— Silbermünzen von Larissa. *Z.f.N.* 35 (1924).
 *E. ROGERS. *Copper Coinage of Thessaly*. London, 1932.
 J. N. SVORONOS. Scyros. *J.I.A.N.* 1911.
 **O. RAVEL. The Colts of Ambracia. *N.N.M.* 37.
 **A. J. REINACH. Aetolia. *J.I.A.N.* 1911.

(vi) CENTRAL GREECE

- E. T. NEWELL. Octobols of Histiaea. *N.N.M.* 2.

(vii) ATTICA

- **C. T. SELTMAN. *Athens, its History and Coinage*. Cambridge, 1924.
 J. N. SVORONOS. *Les Monnaies d'Athènes*. (Plates only.) Munich, 1926.
 — Laurion. *J.I.A.N.* 1915.
 — La Monnaie d'Or Attique. *J.I.A.N.* 1927.
 F. HILLER VON GAERTRINGEN and G. KLAFFENBACH. Münzgesetz d. ersten athen. Seebundes. *Z.f.N.* 35 (1925).
 A. N. WOODWARD. First Gold Issue of Athens. *J.H.S.* 1909, and *N.C.* 1911.
 P. GARDNER. Coins of the Athenian Empire. *J.H.S.* 1913.
 M. L. KAMBANIS. Classement Chronologique des Monnaies d'Athènes. *Arethuse*, 1928.
 S. R. MILBANK. Coinage of Aegina. *N.N.M.* 24.

(viii) PELOPONNESE

- C. W. C. OMAN. Corinth, Later Coinage. *N.C.* 1926.
 O. RAVEL. Notes on Pegasi. *N.C.* 1926.
 *— Numismatique Corinthienne. *Rev. Num.*, 1932; and *Arethuse*, 1929.
 — Corinthian Hoards. *N.N.M.* 52.
 J. B. CAMMANN. Symbols on Staters of Corinthian Type. *N.N.M.* 53.
 **C. T. SELTMAN. Temple Coins of Olympia. Cambridge, 1921.
 J. G. MILNE. Coinage of the Eleians. *N.C.* 1931.

(ix) CRETE AND AEGEAN ISLANDS

- E. S. G. ROBINSON. *Pseudo-Aeginetica*. N.C. 1928.
 G. F. HILL. *Cretan Coins from the Seager Collection (Essays in Aegean Archaeology)*. Oxford, 1927).
 G. MACDONALD. The Silver Coinage of Crete. *Proc. Brit. Academy*, ix.
 J. S. CAMERON and G. F. HILL. Some Cretan Coins. N.C. 1913.
 *R. JAMESON. Statères de Melos. *Rev. Num.* 1908 and 1909.
 C. T. SELTMAN. Aegean Mints. N.C. 1926.

(x) PONTUS, PAPHLAGONIA, BITHYNIA

- *W. H. WADDINGTON, E. BABELON and T. REINACH. *Recueil Général des Monn. Grecques d'Asie Mineure*. Fasc. I (in 2nd ed.). Paris, 1925.
 E. S. G. ROBINSON. Sinope. N.C. 1920 and 1930.
 E. T. NEWELL. Küchük Köhne Hoard (Sinope). N.N.M. 46.
 K. REGLING. Timotheos. *Z.f.N.* 39 (1929).
 F. IMHOOF-BLUMER. Kupferprägung d. mithridatischen Reiches. *Numismatische Zeitschrift*. Vienna, 1912.

(xi) MYSIA

- *H. VON FRITZE. Münzen von Adramytion. *Nom.* v.
 *— Elektronprägung von Kyzikos. *Nom.* vii.
 *— Silberprägung von Kyzikos. *Nom.* ix.
 *— Kupferprägung von Kyzikos. *Nom.* x.
 K. REGLING. Goldschatz von Prinkipo. *Z.f.N.* 41 (1931).
 **A. BALDWIN BRETT. Electrum of Lampsakos. *Suppl. to A.J.N.* 1914.
 **— Lampsakos. *A.J.N.* 53 (1924).
 *H. GAEBLER. Silberprägung von Lampsakos. *Nom.* xii.

(xii) TROAS

- *H. VON FRITZE. (Alexandria Troas) Aufgaben etc. *Nom.* vi.
 J. G. MILNE. Coins of Temnos. N.C. 1914.

(xiii) IONIA

- R. JAMESON. Trouvaille de Vroula. *Rev. Num.* 1911.
 P. GARDNER. Coinage of the Ionian Revolt. *J.H.S.* 1911.
 *K. REGLING. Klazomenai. *Z.f.N.* 33 (1921).
 **— Phygela. *Z.f.N.* 33 (1921) and 34 (1923).
 **— *Münzen von Priene*. Berlin, 1927.
 **J. G. MILNE. Coins of Smyrna. N.C. 1914, 1923, 1927, 1928.
 **A. BALDWIN BRETT. Electrum and Silver of Chios. *A.J.N.* 48 (1914).
 *J. MAVROGORDATO. Chronological Arrangement of the Coins of Chios. N.C. 1915 to 1918.

(xiv) CARIA

- J. G. MILNE. Cnidus. N.C. 1911, 1914.

(xv) LYDIA

- T. L. SHEAR. Hoard from Sardis. *Amer. Journ. Arch.* 1922.
 H. W. BELL. *Sardis*. Vol. XI, Part I (*Coins*). London, 1916.
 W. H. BUCKLER. A Lydian Text on an Electrum Coin. *J.H.S.* 1926.

(xvi) PAMPHYLIA

- C. T. SELTMAN. Hoard from Side. *N.N.M.* 22.

(xvii) CILICIA

- E. T. NEWELL. A Cilician Find. *N.C.* 1914.
 **P. LEDERER. Staterprägung der Stadt Nagidus. *Z.f.N.* 41 (1931).

(xviii) THE SELEUCID KINGS, ETC.

- *E. T. NEWELL. Seleucid Mint of Antioch. *A.J.N.* 1917.
 — Coinage of Antioch. *N.C.* 1919.
 **— First Seleucid Coinage of Tyre. *N.N.M.* 10.
 **E. ROGERS. Second and Third Seleucid Coinage of Tyre. *N.N.M.* 24.
 C. W. C. OMAN. Antiochus VIII. *N.C.* 1917.
 — Antiochus IX. *N.C.* 1919.
 K. REGLING. Dynastienmünzen von Tyana, Morima und Anisa. *Z.f.N.* 42 (1932).

(xix) THE EAST

- G. F. HILL. *B.M.C. Greek Coins of Palestine*. London, 1914.
 — *B.M.C. Greek Coins of Arabia, Mesopotamia, and Persia*. London, 1922.
 — Coinage of Southern Arabia. *Proc. Brit. Academy*, vii.
 E. S. G. ROBINSON. Aspeisas, Satrap of Susiana. *N.C.* 1921.
 K. REGLING. Münzschatz aus Babylon. *Z.f.N.* 38 (1928).
 H. DRESSER. Tetradrachme des Mithradates III. *Z.f.N.* 33.
 E. T. NEWELL. Parthian Hoard. *N.C.* 1924.
 — A Numismatic Palimpsest. *N.N.M.* 26.
 G. F. HILL. Attambelos I. *N.N.M.* 14.
 M. LIDZBARSKI. Münzen von Characene. *Z.f.N.* 33 (1921).
 A. B. WHITEHEAD. Indo-Greek Numismatics. *N.C.* 1923.
 — Coinage of N.W. India. *N.N.M.* 13.
 G. MACDONALD and E. J. RAPSON. *Cambridge History of India*. Vol. 1, Chs xv, xvii, xxii and xxiii.

(xx) AFRICA

- W. KOCK. Die ersten Ptolemäerinnen. *Z.f.N.* 34 (1923).
 E. T. NEWELL. Egyptian Hoards. *N.N.M.* 33.
 *E. S. G. ROBINSON. *B.M.C. Cyrenaica*. London, 1927.

(xxi) ROMAN REPUBLICAN IN RELATION TO GREEK COINS

H. MATTINGLY. *Romano-Campanian Coinage and the Pyrrhic War.* N.C. 1924.

— *Roman Coins.* London, 1928.

— *First Age of Roman Coinage.* J.R.S. 1929.

E. A. SYDENHAM. *The Victoriate.* N.C. 1932.

E. CATALOGUES

(i) MUSEUMS

British Museum. Catalogue of Greek Coins in the. London, 1873 to 1927; 29 vols.

British Museum. Catalogue of Indian Coins in the. Vol. I. London, 1886.

Berlin. Beschreibung d. antiken Münzen in. Berlin, 1888 to 1894; 3 vols.

Paris, Catal. des Monnaies Grecques de la Bibliothèque Nationale d. Rois de Syrie. Paris, 1890.

Perses Achéménides. Paris, 1893.

Collection de Luynes. Paris, 1924/25; 2 vols.

Cambridge. W. M. LEAKE Collection. Numismata Hellenica. London, 1856.

McClean Collection of Greek Coins in the Fitzwilliam Museum. Cambridge, 1923 to 1929; 3 vols.

Boston, Die griechischen Münzen der Sammlung Warren. Berlin, 1906.

New York. Greek Coins and their Parent Cities. London, 1902.

Glasgow. Greek Coins in the Hunterian Collection. Glasgow, 1899 to 1905; 3 vols.

(ii) PRIVATE COLLECTIONS

Collection R. Jameson, Monnaies Grecques Antiques. Vols. I and III. Paris, 1913, 1924.

The Weber Collection. London, 1922 to 1923; 3 vols.

G. Locker-Lampson. Catalogue of Ancient Greek Coins Collected by. London, 1923.

Sylloge Numorum Graecorum. London, 1931—

(iii) SALE CATALOGUES (ILLUSTRATED)

(To the select list in H.N. p. xxxi add the following:)

T. PROWE. Vienna, 1904, 1912, 1914.

M. VIRZI. Munich, 1912.

S. POZZI. Geneva, 1920.

C. S. BEMENT. Geneva, 1923, 1924.

Baron A. DE PETROWICZ. Geneva, 1925, 1926.

L. NAVILLE. Various catalogues published in Geneva since 1920.

SUPPLEMENT

The classification adopted is the same as that employed above
for the SELECT BIBLIOGRAPHY

A. GENERAL WORKS

G. F. HILL. *A Guide to the Principal Coins of the Greeks*. London, 1932.

B. PERIODICALS

Note especially *J.H.S. Index to Vols. 43—60, s.v. "Coins."*
Museum Notes. New York.

Transactions of the International Numismatic Congress. London, 1936,
etc.

C. WORKS ON SPECIAL ASPECTS

(i) ART

CHARLES SELTMAN. *Masterpieces of Greek Coinage*. Oxford, 1949.

CHARLES SELTMAN. *A Book of Greek Coins* (The King Penguin Books).
London, 1952.

CHARLES SELTMAN. *Approach to Greek Art*. London, 1948.

K. LANGE. *Antike Münzen*. Berlin, 1947.

H. A. CAHN. *Griechische Münzen Archaischer Zeit*. Basel, 1947.

M. HIRMER. *Die Schönsten Griechenmünzen Siziliens*. Leipzig, 1940.

G. E. RIZZO. *Saggi Preliminari su l'Arte della Moneta nella Sicilia
Greca*. Rome 1938.

G. E. RIZZO. *Monete Greche della Sicilia*, 2 vols. Rome 1946.

H. A. CAHN. *Frühhellenistische Münzkunst*. Basel, (1946?).

K. LANGE. *Herrscherköpfe des Altertums*. Berlin, 1938.

K. LANGE. *Götter Griechenlands*. Berlin, 1941.

L. LACROIX. *Les Reproductions de Statues sur les Monnaies Grecques*.
Liège, 1949.

(iii) HISTORY

E. S. G. ROBINSON. The Athenian Currency Decree. *Hesperia Supp-
lement*, 1949.

EUGENE CAVAIGNAC. *L'Économie grecque*. Paris, 1951.

(iv) HOARDS

S. P. NOE. A Bibliography of Greek Coin Hoards, *Second Edition*.
N.N.M. 78 (1937).

E. S. G. ROBINSON. A Silversmith's Hoard from Mesopotamia, *Iraq*
Vol. XII (1950).

R. CURIEL and D. SCHLUMBERGER. Trésors Monétaires d'Afghanistan,
Mémoires de la Délégation Arch. Française en Afghanistan, xiv,
(1953).

(vi) METROLOGY, ETC.

- W. CAMPBELL. Greek and Roman Plated Coins. *N.N.M.* 57 (1933).
 J. H. JONGKEES. Athenian Coin Dies from Egypt. *N.C.* 1950.

D. WORKS DEALING WITH PARTICULAR MINTS
REIGNS OR REGIONS

(These lists continue those appearing on page xvi ff. Titles are occasionally abbreviated.)

* means that the book or article is a conspectus.

**means that it is a complete Corpus.

(i) ITALY

- O. RAVEL. *The Collection of Tarentine Coins formed by M. P. Vlasto*. London, 1947.
 *EUNICE WORK. Earlier Staters of Heraclea Lucaniae. *N.N.M.* 91 (1940).
 **S. P. NOE. A Group of Die-sequences at Poseidonia. *Museum Notes V* (1952).
 **S. P. NOE. Thurian Di-staters. *N.N.M.* 71 (1935).
 CHARLES SELTMAN. The Problem of the First Italiote Coins. *N.C.* 1949.
 H. H. SCULLARD. Hannibal's Elephants. *N.C.* 1948.
 W. GOWERS and H. H. SCULLARD. Hannibal's Elephants Again. *N.C.* 1950.
 E. S. G. ROBINSON. Rhegion, Zankle-Messana and the Samians. *J.H.S.* 66 (1946).
 PHYLLIS LEHMANN. *Statues on Coins of S. Italy and Sicily*. New York, 1946.

(ii) SICILY

- *CHARLES SELTMAN. The Engravers of the Akgrantine Decadrachms. *N.C.* 1948.
 **H. A. CAHN. *De Münzen der Sizilischen Stadt Naxos*. Basel, 1944.
 E. S. G. ROBINSON. Petra or Eryx. *N.C.* 1948.
 **J. H. JONGKEES. *The Kimonian Dekadrachms, A Contribution to Sicilian Numismatics*. Utrecht, 1941.
 E. BOEHRINGER. Salvatore Penisi Barone di Floristella. *Z.f.N.* 42 (1935).
 CHARLES SELTMAN. The Ancient Coinage of Malta. *N.C.* 1946.

(iii) MACEDON AND THE ALEXANDER COINAGE

- **J. DESNEUX. *Les Tétradrachmes d'Akanthos*. Brussels, 1949.
 **D. M. ROBINSON and P. A. CLEMENT. *The Chalcidic Mint*. Baltimore, 1938.
 **J. M. F. MAY. *The Coinage of Damastion*. Oxford, 1939.
 **DORIS RAYMOND. Macedonian Regal Coinage to 413 B.C. *N.N.M.* 126 (1953).

- T. GERASSIMOV. A Hoard of Decadrachms of the Derrones. *N.C.* 1938.
 **E. T. NEWELL and S. P. NOE. The Alexander Coinage of Sicyon.
Am. Num. Soc. Studies 1951.
 C. C. TORREY. Demanhur; Aramaic Graffiti. *N.N.M.* 77 (1937).
 A. BALDWIN BRETT. Athena Alkidemos. *Museum Notes IV* (1950).
 *A. MAMROTH. Bronzemünzen des Königs Philippos V von Makedonien.
Z.f.N. 42 (1935).

(iv) THRACE

- **J. M. F. MAY. *Ainos, Its History and Coinage.* Oxford, 1950.

(vi) CENTRAL GREECE

- E. J. P. RAVEN. The Amphictionic Coinage of Delphi. *N.C.* 1950.

(vii) ATTICA

- CHARLES SELTMAN. On the 'Style' of Early Athenian Coins. *N.C.* 1946.
 J. H. JONGKEES. Notes on the Coinage of Athens. *Mnemosyne* 1944 and following.
 E. S. G. ROBINSON. The Tell El-Mashkuta Hoard of Athenian Tetradrachms. *N.C.* 1947.
 M. L. CAMBANIS. Notes sur le Classement Chronologique des Monnaies d'Athènes. *Bulletin de Correspondence Hellenique*, 1932 and following.
 MARGARET THOMPSON. The Beginning of Athenian New-Style Coinage. *Museum Notes V* (1952).
 MARGARET THOMPSON. Workshops or Mines. *Museum Notes V* (1952).
 CHARLES SELTMAN. Two Athenian Marble Thrones. *J.H.S.* 67 (1949).

(viii) PELOPONNESE

- **O. RAVEL. *Les 'Poulains' de Corinthe*, I (1936), II (1948). London.
 CHARLES SELTMAN. Greek Sculpture and Some Festival Coins. *Hesperia* 17 (1942).
 W. SCHWABACHER. Drachms of Elis. *N.C.* 1939.
 CHARLES SELTMAN. The 'Katoché' Hoard of Elean Coins. *N.C.* 1951.

(ix) CRETE AND AEGEAN ISLANDS

- G. K. JENKINS. The Cameron Collection of Cretan Coins. *N.C.* 1949.
 E. J. P. RAVEN. The Hierapytna Hoard. *N.C.* 1938.
 J. G. MILNE. The Evans Collection: The Cretan Coins. *N.C.* 1943.
 J. G. MILNE. The Melos Hoard. *N.N.M.* 63 (1934).

(x) PONTUS, PAPHLAGONIA, BITHYNIA

- JACQUELINE CHITTENDEN. Hermes, Mercury, Dynasts and Emperors. *N.C.* 1945.

(xi) MYSIA

- *E. T. NEWELL. The Pergamene Mint under Philetærus. *N.N.M.* 76 (1936).

(xiii) IONIA

- E. S. G. ROBINSON. The Coins from the Ephesian Artemision Reconsidered. *J.H.S.* 71 (1951).
 CHARLES SELTMAN. The Wardrobe of Artemis. *N.C.* 1952.
 **J. G. MILNE. Kolophon and its Coinage. *N.N.M.* 96 (1941).

(xiv) CARIA

- E. S. G. ROBINSON. Archaic Coins from South-west Asia Minor. *N.C.* 1936.

(xvii) CILICIA, ETC.

- W. SCHWABACHER. Coins of the Vouni Treasure Reconsidered. *Nordisk Numismatisk Arsskrift*, 1947.

(xviii) THE SELEUCID KINGS, ETC.

- *E. T. NEWELL. The Seleucid Mints of Ake-Ptolemais and Damascus. *N.N.M.* 84 (1939).
 *A. BALDWIN BRETT. Seleucid Coins of Ake-Ptolemais. *Museum Notes I* (1946).
 A. BALDWIN BRETT. The Mint of Ascalon under the Seleucids. *Museum Notes IV* (1950).
 **E. T. NEWELL. Seleucid Coins of Tyre. *N.N.M.* 73 (1936).
 S. P. NOE. Alexandria Troas under Antiochus Hierax. *Museum Notes V* (1952).
 A. R. BELLINGER. A Seleucid Mint at Elaeusa Sebaste. *Museum Notes III* (1948).
 A. R. BELLINGER. Coins from Antioch in Syria. *Museum Notes V* (1952).
 A. R. BELLINGER. Crassus and Cassius at Antioch. *N.C.* 1944.
 H. SEYRIG. Notes on Syrian Coins. *N.N.M.* 119 (1950).
 H. ST. J. HART. The Crown of Thorns in John 19, 2-5. *Journal of Theological Studies*. April 1952.
 *E. T. NEWELL. Eastern Seleucid Mints, Seleucus I to Antiochus III. *Am. Num. Soc. Studies* 1938.
 *E. T. NEWELL. Western Seleucid Mints, Seleucus I to Antiochus III. *Am. Num. Soc. Studies* 1941.

(xix) THE EAST

- H. ST. J. HART. Judaea and Rome, the Official Commentary, *Journal of Theological Studies*, October 1952.
 E. T. NEWELL. Miscellanea Numismatica. *N.N.M.* 82 (1938).
 A. R. BELLINGER. Hyspaosines. *N.C.* 1944.
 A. D. H. BIVAR. The Bactrian Coinage of Euthydemus and Demetrius. *N.C.* 1951.
 A. B. WHITEHEAD. Notes on the Indo-Greeks. *N.C.* Three parts; 1940, 1947, 1950.

- H. L. HAUGHTON. Silver Coinage of Strato and Agathocleia. *N.C.* 1948.
 A. B. WHITEHEAD. The Eastern Satrap Sophytes. *N.C.* 1943.

(xx) AFRICA

- A. BALDWIN BRETT. Hoard of Ptolemaic Gold Coins. *Museum Notes* V. (1952).
 A. BALDWIN BRETT. Dated-Coins of Ptolemy V. *Museum Notes II* (1947).
 E. S. G. ROBINSON. Coinage of the Libyans and kindred Sardinian Issues. *N.C.* 1943.
 **L. NAVILLE. *Les Monnaies d'or de la Cyrénaïque*. Geneva, 1951.

(xxi) ROMAN REPUBLICAN IN RELATION TO GREEK COINS

- H. MATTINGLY and E. S. G. ROBINSON. The Date of the Roman Denarius and other Landmarks in Early Roman Coinage. *Proceedings British Academy, XVIII* (1932).
 H. MATTINGLY. The First Age of Roman Coinage. *J.R.S.* 1945.
 G. C. BROOKE. The Philippus in the West and the Belgic Invasions of Britain. *N.C.* 1933.
 G. C. BROOKE. Gaulish and British Gold. *Antiquity*, 1933.
 D. F. ALLEN. Ancient British Coinage. *Archaeologia*, 1944

E. CATALOGUES

(ii) PRIVATE COLLECTIONS

Sylloge Nummorum Graecorum now comprises 10 volumes, and more are to follow.

(iii) SALE CATALOGUES (ILLUSTRATED)

Since the publication of our first edition, important illustrated sale catalogues have been published in London, Paris, Amsterdam, Frankfurt, Bale, Lucerne and Rome.

GREEK COINS

CHAPTER I

CURRENCY AND MONEY

METAL when used to facilitate exchange of goods is currency; currency when used according to specific weight-standards is money; money stamped with a device is coin. Metal intrinsically valuable, weight deliberately adjusted, the mark or device of a responsible authority, all three are needed to make a coin.

Mankind first learnt to value, next to weigh and last of all to stamp metal; or, in other words, evolved from barter a metallic currency, abandoned mere currency for money and then mere money for coinage.

How, when, and where value first came to be attached to metal must remain, in our present state of knowledge, a conjecture, while the ingenious person who first invented a balance wherein to weigh the metal can only be unlocalised and obscure. But the first man to strike a coin falls already within the range of history.

Conjectures, however, like the myths of the ancients, are not altogether to be despised, and something may be gained by an attempt to comprehend how man has come to value so greatly gold and silver, and why those metals became currency before they were money or coin.

If, as seems possible, early civilisation radiated from a single centre, that focus is perhaps to be sought in Central Asia whence the earliest Sumerian and the Indus-Valley cultures may have derived, the former being held to have had a profound influence on the pre-dynastic civilisation of the Nile valley. Now civilisation is dependent on the discovery and use of metal, and in Mesopotamia and Egypt alike, copper and gold were in use possibly as early as 5000 B.C. It may be the case that the originators of civilisation were themselves already acquainted with these metals before cultural influence began to radiate from mid-Asia.

But those same originators must once have been nomad people owning flocks and herds, and they, perhaps long before 6000 B.C., may have established a set of values in terms of cattle in just such a way as more backward peoples are known to have

established them at a much later date. Perhaps in those remote days you gave ten sheep for a cow or bartered from two cows to twenty cows for a bride in accordance with her comeliness.

Be that as it may, a point was reached in the course of early civilisation when gold came to be regarded as the most desirable, the most valued, possession of man.

A metal found in the earth, sometimes almost unalloyed, untarnishable, its purity capable of the test by fire, whence it emerged unaltered, everlasting, immutable, it naturally became a kind of symbol of immortality for which mankind forever hankered; and the mediaeval alchemist who sought the Elixir of Life believed that the same elixir which should confer immortality would transmute base metals into gold.

Possessed of this vast superiority over all other metals and materials, gold naturally became the first perquisite of royalty entitled to the best of everything¹.

Mes-Kalam-Dug, "the good hero of the land," prince of Ur, buried probably as early as 3500 B.C., took with him to the next world a wealth of golden vessels and weapons such as no commoner would have ventured to possess². The tombs of Egyptian kings and of princes of Mycenae two thousand years later, afford proof of the same custom. Kingship implied divinity; and gold, the mark of kingship, was as immutable as divinity itself. It is small wonder that any civilised society possessing the metal valued it above all else.

Silver, which blackens and changes even in a life-time, was a poor second; copper, which a few days of moisture may tarnish, ranked as third in the natural scheme of metallic values.

Towards the end, perhaps, of the neolithic, or at latest in the chalcolithic age, which marked the overlap from stone to bronze, the lust for gold was born. During the long bronze age, which followed, it is possible to trace the process by which gold became the chief universal medium of exchange and trade. The iron age perfected that medium by the invention of coined money.

The bronze age in the Mediterranean area is divided by historians into three great periods, Early, Middle, and Late, a convenient division which applies with equal force to Egypt, Minoan Crete, and Hellas. During the Early and Middle bronze

¹ Treasure-trove to our day is still the property of the Crown.

² *Brit. Mus. Quarterly*, ii, p. 40.

ages the various nations had only occasional contact with one another, and each kingdom or community was on the whole self-supporting and self-contained. Nevertheless man hunted for gold and found that he was sometimes able to accumulate stores of wealth. Only he who had made his pile could enjoy leisure, and leisure it is which makes literature and art possible, for leisure gives man time to think. Thus among the nations that first hoarded gold, art, contemplation and literature first had their birth. The workers had little leisure, and commodities were exchanged between man and man, between woman and woman by simple barter. For a copper cauldron and two pruning-hooks the farmer gave the coppersmith a sack of corn; for a basket of eggs the farmer's wife got from the nomad's wife an ostrich feather, and each went home happy in the belief that a fellow creature had been outwitted. Many sacks of corn, the plumes of many ostriches could be had for a little nugget of gold, for living was cheap; and if life itself was cheap it was, no doubt, also generally cheerful in the Near East, then as now.

With the dawn of the Late bronze age about 1600 B.C.—marked in Egypt by the beginning of the New Kingdom, in Crete and Hellas by the period known as Late Minoan I and Late Helladic I—a great change took place in the economic conditions of the ancient world. Two centuries previously, about 1800 B.C., one of those great upheavals, which from time to time convulse the East, had taken place. The Kassites had seized Babylonia, the Hyksos invaders from Syria had overpowered Egypt, and with these upheavals the horse had been introduced by the foreign invaders. For two hundred years Egypt endured the foreign yoke before she threw it off, and, abandoning her ancient isolation, swept into Asia in a series of campaigns of revenge. The horse, which had helped the Hyksos to conquer Egypt, was employed by Egypt in her turn against the Asiatics. But the horse had an economic as well as a military significance. In the old days the trader had been loth to venture far on foot with nothing but little donkeys and a few slow-moving camels to carry his wares. Now with a horse between his knees¹, or a pair beneath the yoke, he could move faster, more securely; he could defend his caravan against the attack of man and beast, while mules as pack-animals proved hardy, sure-footed and

¹ If he had learnt to ride as well as to drive.

strong. Thus from 1600 B.C. onwards the great nations that met in the battlefields made treaties of peace or of alliance when their wars had been concluded, while the merchants and traders ventured on expeditions which carried them far afield. The age of internationalism had begun.

It was about this time that the peoples of the south began to come into frequent contact with races whose standard of value was other than a gold standard. There were in Europe, as well as in the highlands and pasturelands of western Asia, many races whose wealth lay not in metals, but in flocks and herds, and among such backward peoples the natural and obvious unit of value was the ox or cow. This in Greece proper as well as in the Italian peninsula was the earliest measure of value, for, to cite but a few instances, at Delos in early times¹, at Athens under the code of Draco² and in the early laws of Rome³ payments and fines were reckoned in cattle, while the ox was the standard of value to Homer's Achaeans in the twelfth century B.C.

When on the plain of Troy Glaucus and Diomedes met and recognised one another as guest-friends by descent, the Achaean prince proposed to the Lycian an exchange of armour in token of their friendship⁴:

Then Zeus, son of Kronos, took from Glaucus his wits, in that he made exchange with Diomedes, Tydeus' son, of golden arms for bronze, of arms worth a hundred oxen for arms worth nine.

While the northerners and highlanders reckoned in cattle the Egyptians and the peoples of Mesopotamia were using gold, silver, electrum (a natural amalgam of silver and gold) and bronze, which they had learnt to weigh in the balance for the purpose of estimating its value. Such a state of affairs existed when, about the beginning of the sixteenth century B.C., the peoples of the great rivers came into frequent contact with the rest of the ancient world. Traders from the Nile and from Babylonia began to meet with the traders of the Hittites, with Phoenician Semites, Cretans, islanders and rude tribesmen hailing from the northern shores of the Aegean Sea, and it was generally in the islands—very frequently in Cyprus and in Crete—that they met. Besides manufactured goods, linen and dyed wool, Egyptians and Semites brought their commercial rings

¹ Pollux, *Onom.* ix, 61.

³ Dionys. Halicarn. x, 50.

² *L.c.* 60.

⁴ *Il.* vi, 234.

[Pl. 1, 1] of gold and electrum, Hittite subjects their silver and cattle, Cypriots their ingots of copper; and for many decades the bartering and bargaining of vociferous merchants, whose standards of value were so diverse, must have rent the air. But at last a sort of system of values, generally recognised, was apparently evolved from the prevailing chaos. You could cut off lengths from bars of gold and silver, you could break off segments of electrum rings, you could chop off blocks of bronze from your ingots; but you could not divide your ox without converting him into beef and by that act decreasing his value.

So the ox-unit by reason of its indivisibility became the standard to which gold and bronze were of necessity adjusted, and in the Aegean the gold unit of value apparently became a little pellet [Pl. 1, 2], bar, or ring weighing some 8.5 grammes, the price of an ox; the copper unit of value became a great ingot weighing some $25\frac{1}{2}$ kilogrammes (about 60 lbs.) [Fig. 1], or even more, which was likewise the price of an ox. Each of these metal units the Greeks called a *talanton*; but the copper or bronze talent weighed, in Greece at any rate, 3000 times as much as the little golden talent.

In Mycenae there ruled during the fifteenth and part of the fourteenth centuries B.C. a dynasty of kings who were buried in the shaft-graves close by their citadel, and in the grave of one member of this royal family was found a series of rings and spirals of gold wire, some of which were possibly adjusted to this little gold talent of 8.5 grammes. A golden talent of the same standard [Pl. 1, 2] and two gold half-talents [one figured Pl. 1, 3] were found in a cemetery of the twelfth century B.C. at Old Salamis in Cyprus, the former weighing 8.6, the latter 4.68 grammes, and these were conceivably in circulation when the Achaeans were besieging Troy; moreover they have been ingeniously connected with the earliest reference to gold currency in Greek literature.

Achilles was ordering the varied events in the funeral games held for his friend Patroclus, and when the foot-race was due to be run¹ he chose as the first prize a great silver bowl cunningly chased:

Now this cup Achilles set apart as a prize in honour of his friend, for the man who should prove the fastest in the race. For the second he set an ox, great and very fat; and for the last prize half a talent of gold.

¹ *Il.* xxiii, 740.

There can be little doubt that a scale of decreasing values is implied, and that the third prize, the half-talent of gold, is apparently worth but half of the second prize, the ox¹. In other words, in the Homeric age, the talent of gold seems to have been regarded as equal in value to an ox or cow.

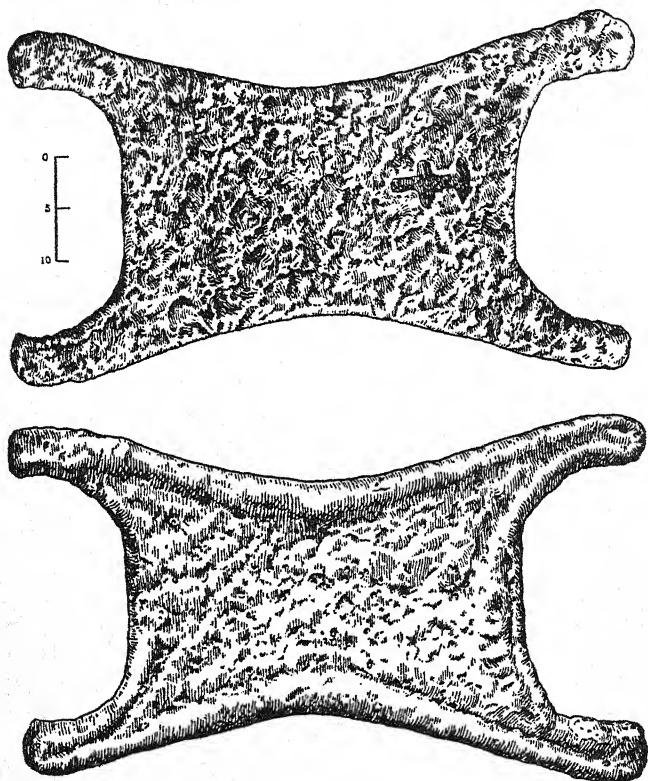


Fig. 1. The two sides of a bronze talent from Mycenae.

Tradition, even at a late date, maintained that the little golden talent of the Homeric age had been just such a small pellet weighing no more than 8.5 grammes, and this in spite of the fact that the Greeks of a later age thought of the word *talanton* as connoting a heavy weight. An Alexandrine author, writing in the Hellenistic age², made the following statement:—

¹ W. Ridgeway, *Origin of Currency*, p. 8.

² Hultsch, *Reliq. Scriptor. Metrol.* i, 301.

"the talent of Homer was equal in amount to the later Daric. Accordingly the gold talent weighs two Attic drachmas." Since the later Daric scaled 8.34 grammes and two Attic drachmas 8.62 grammes, the Alexandrine's traditional belief has apparently been proved right by the spade of the archaeologist.

The heavy bronze and copper talents, which were another favourite kind of currency between 1600 and 1000 B.C., have turned up on ancient sites in greater numbers than the gold talents, for they have been found in Cyprus, on the coast of Cilicia, in Crete at Hagia Triada, Tylissos, and Mochlos, in Sardinia, off the coast of Euboea, and in the palace of Mycenae itself. The specimen from the last-named site [Fig. 1] is of the fourteenth century B.C. A century earlier, during the reign of the great conqueror Thutmose III (1501-1447 B.C.), Egyptian wall-paintings depict both Cretans and Syrians bringing similar copper ingots as tribute to the Pharaoh to be stored in his treasury, and there is evidence to show that such large ingots formed part of the treasure of the kings of Cnossus, whose scribes first weighed them and then recorded their value in talents upon the clay tablets which served as palace archives [Fig. 2].

The various peoples who made these heavy pieces of copper currency never lost sight of the fact that they represented the value of an ox or cow, for the ingots were cast in the shape of ox-hides, hides from which head and tail had been cut away; one side of the ingot mimicked the rough hairy cow-hide, the other side resembled the raw inside with its edges curling inwards.

During the Late bronze age, then, from Sardinia in the west to the Taurus range in the east, from the northernmost parts of the Great Sea to Crete in the south, the cow or ox was the principal unit of account, in exchange for which might normally be given, in the Aegean area at least, a piece of gold weighing about $8\frac{1}{2}$ grammes. The base-metal equivalent of this little gold piece was a large ox-hide-shaped ingot of copper. The last, however, varied greatly in weight for the simple reason that copper was less easy to ship from place to place than its portable golden equivalent. Consequently in the great "copper-island," Cyprus, where the metal was common, it was needful to pay, as the price of an ox, a far heavier mass of copper than one would pay in Mycenae where, as compared with Cyprus, the copper was

scarce. For this reason the Cypriot ingot in the British Museum¹ weighs as much as 37 kilogrammes, while the average weight of the "ox-hide talents" used by the Achaeans in Greece was only 25½ kilogrammes.

The whole Mediterranean area may be looked upon as a cultural region of which the economic system was ultimately based on the ox or cow, Egypt formed a second cultural region, Mesopotamia with Syria and Palestine a third.

The Mesopotamian peoples were partly agricultural, partly pastoral, and it is possible that in the dim past their ancestors had, like the Aegean nations later, based their economics originally on the value of cattle. They at any rate had a twofold weight system in which there existed a small unit and a large unit recalling the small Greek gold talent and the great copper or bronze talent, the former being the Babylonian gold shekel of 8·34 grammes, the latter the Babylonian *biltu* of 30 kilogrammes. Further, specially gifted as the Babylonians were with mathematical ability, they invented another weight-unit, the *manah*, which came between the shekel and the *biltu*, and evolved the following system:

	1 shekel	8·34 grammes	
60 shekels	= 1 manah	500·40	„
60 manahs	= 1 biltu	30,024·00	„

In Niniveh there have been found certain stone weights, shaped as ducks, of which one was inscribed with the name of Dungi (*ca.* 2474 B.C.) and the words "ten manahs," while another bears the legend "the palace of Eriba-Marduk², king of Babylon (*floruit ca.* 770 B.C.), thirty manahs." The weights of these stone ducks give a resultant *manah* of about 500 grammes. This *manah* so facilitated the calculation of values that the Greeks, possibly the Ionians of Miletus between 1000 and 800 B.C., who became acquainted with it through the medium of Phoenician traders, themselves presently adopted it under the name of *Mna* (Latin *Mina*), and adjusted the weight to their own *talanton*.

In the cultural region of Egypt an economic system prevailed in which gold had from time immemorial been the chief medium of exchange, principally for the reason that the precious metal was obtainable in the whole north-eastern corner of Africa in

¹ B.M. *Excavations in Cyprus*, p. 17.

² Cf. B.M. *Guide Babyl. and Assyr. Antiq.* 1922, p. 213.

great abundance. There may well be truth in the story reported by Herodotus¹ that among the Nubians copper was so scarce and gold so common that the prisoners were bound in fetters of gold. At any rate a glimpse of the wealth of Egypt in the fifteenth century B.C. may be obtained from a letter² addressed by Tushratta, king of Mitanni, to Amenhotep III (1411-1375 B.C.) in which the Mitannian ruler addresses Pharaoh as "my brother."

"Speak unto Amenhotep," the letter runs, "the great king, the king of Egypt, my brother, my son-in-law, who loves me and whom I love, saying: Tushratta, the great king, thy father-in-law, who loves thee, the king of Mitanni, thy brother. It is well with me. With thee may it be well, with thy house, with my sister and with the rest of thy wives. . . . We will maintain friendship forever. Now when I wrote unto my brother and spoke, verily I said: 'We will be very friendly indeed, and between us we shall be good friends'; and I said to my brother: 'Let my brother grant me ten times greater measure than to my father,' and I asked of my brother a great deal of gold, saying: 'Much more than to my father let my brother give me and may my brother send me. Thou sentest my father a great deal of gold: a large offering vessel of gold, and vessels of gold, thou sentest him: thou sentest him a tablet of gold as if it were alloyed with copper. . . . So let my brother send gold in very great quantity which cannot be counted, and may my brother send more gold than my father received. For in my brother's land gold is as common as dust.'"

Less than half a century after the sending of this frank begging letter from one king to another, a king of Egypt, whose name has become a household word, Tutankamen, was placed in his tomb and his body surrounded by a wealth of gold so great that we in our day may pardonably echo the words of the Pharaoh's candidly importunate brother king: "in thy land gold is as common as dust."

The stores of wealth accumulated by kings, princes and merchants had of necessity to be kept securely, either in the palace magazines, or within the walls of temples the sacred character of which protected all valuables there deposited. The temple-treasury became a Safe-deposit, the Safe-deposit in its turn produced the Bank, which, with many of the subtleties of modern finance, came into existence in very early times; for the Semitic genius for figures and finance developed the Bank from the royal or sacred treasury. The development must have been somewhat after the following fashion.

¹ iii, 23.

² Tel-el-Amarna letters no. xix.

From earliest times the metallic wealth of Sumer, of Accad, and of Egypt was poured into the coffers of the ruler and of his gods. Strongly built and carefully guarded were the treasure-houses where this wealth was stored, and their fame, in Egypt at least, was enshrined in the pages of Herodotus in that amusing tale¹, like some romance from the *Arabian Nights*, which tells of the cunning thief who rifled Pharaoh's treasury, tricked his guards, and was for his wits and daring rewarded with the hand of the king's daughter. The most accurate records were kept by the scribes, royal and priestly, of the contents of each treasure-house, of receipts and expenditure with dates and names.

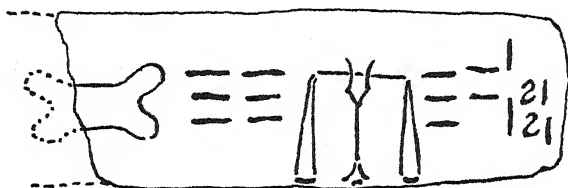


Fig. 2. Clay tablet from the magazines at Cnossus.

With these store-houses may be compared the magazines of the great palace of Cnossus and the long galleries of Tiryns with their store-chambers, the latter built in the thickness of the Cyclopean walls. In the former was found a clay tablet [Fig. 2] which shows with what care the scribes of the Cretan kings recorded the deposit of ox-hide copper talents within the royal treasure-house. On the tablet appears the picture of a copper ingot, which is followed by six marks signifying the figure 60; after this comes the picture of a balance and marks which represent $52\frac{1}{2}$. Sir Arthur Evans² has read this as an equation which is to be interpreted as follows: "60 ox-hide ingots (on being weighed in the balance) = $52\frac{1}{2}$ talents." Of course they should have weighed a full 60 talents, but were, like many of the ingots which the spade has unearthed, under-weight, and before they were stored in the palace magazine this fact was recorded in the treasury archives.

The treasuries of Crete and of Egypt, however, seem to have served only the economy of royal household or kingdom, or of the houses of the gods. They afforded, so far as we know, no help

¹ ii, 121.

² *Corolla Numis.* p. 361.

to the merchants, and their administrators took no cognizance of the needs of private persons.

In Babylonia a different state of affairs prevailed even at the time of the First Dynasty (2169 B.C.) of Babylon, for the great code of Hammurabi throws not a little light on Mesopotamian trade, banking and finance. The Babylonians possibly evolved for themselves the institution of royal and sacred treasuries along with the accurate keeping of accounts; and the genius of the Semites of Accad was not slow to discover fresh possibilities latent in these institutions. Facilities were given to private persons to deposit their goods and chattels, their vessels of silver and little hoards of gold in the treasuries for safe keeping, and in return for the privilege and security the depositor paid a fee, which many a merchant, departing on a long journey, would only too gladly afford. These business dealings between merchant and temple treasurer opened the way to yet other possibilities. The treasurer commanded great stores of metal, the merchant required more capital to purchase goods. Loans of metal were made against securities in kind, but the god demanded compensation for risking his capital, and thus the Semitic peoples in actual fact became the inventors of usury.

Moreover, other complications of banking quickly developed and were already the subjects of legislation and regulation in Hammurabi's code. For example, a man ran a regular account with the temple treasury, which held securities of his in deposit. The treasury made payment on demand and received from his customers "cash" (i.e. metallic currency), which was placed to his account. Thus finance became a part of the Semite's religion and long remained a part thereof.

The Phoenicians were, presumably, not slow to adopt these refinements of economic practice from their Mesopotamian cousins, and from the Phoenicians the Greeks later learnt them, not, however, until by the invention of coined money the manipulations of finance had been still more facilitated.

Because finance originated in Babylonia many scholars have believed that the same source supplied the rest of the ancient world with its systems of weights and measures variously modified. This assumption seems to lack adequate support and would imply a domination of the world by Babylonian economics such as never existed. Various peoples independently invented

their own measures and evolved their weights for metals in conformity with their ideas of the purchasing power of those metals. That nations living far apart should happen at times to adopt similar metallic standards is only to be expected, as the purchasing power of the precious metals in particular was frequently similar in different lands, and this would adequately account for the existence of what appear to be kindred systems in separate countries.

B.C.		B.C.
2400	<i>Middle Minoan I</i>	2400
2100	<i>Middle Minoan II Middle Helladic I</i>	2100
1800	<i>Middle Minoan III Hyksos in Egypt</i>	1800
1600	<i>L.M. I L.H. I New Empire in Egypt</i>	1600
1500	Mycenae. <i>A'</i> ring talent in shaft grave Cnossus. Clay tablet depicting ingot Thutmose III. Ingots on Egyptian paintings	1500
1400	<i>L.H. II</i> <i>L.H. III</i>	1400
1300	Mycenae. <i>Æ</i> ingot from palace	1300
1200	Trojan War. Homeric <i>A'</i> talents in <i>Iliad</i> Old Salamis. <i>A'</i> talent from cemetery	1200
1100		1100
1000	<i>Dorian invasions</i> <i>Iron age begins</i>	1000
900	Approx. date of Homer. Homeric <i>A'</i> talent in use	900
800		800
700	Lydia. Invention of coinage Argos. Pheidon abolishes iron spit-money. Aegina begins coinage	700
600	Athens. Coinage begins	600

A' = gold. *Æ* = bronze.

The first great age of internationalism lasted some six centuries and then collapsed before the recurring inroads of northern peoples, who employed iron weapons instead of bronze. The iron age was at hand, and was destined to evolve a new economic weapon—coined money.

CHAPTER II

THE INVENTION OF COINAGE

A. DATES AND TRADITIONS

THE bronze age civilisation, which had endured and developed during three millennia, gave place about 1000 B.C. to the iron age and to a culture which, while habitually employing iron for weapons of offence, was generally of a grade far lower than had been the culture of the empires of Crete and Mycenae. The transition from the one age to the other was, however, gradual. Iron was not unknown in the earlier age, but it ranked as a rare metal, until the Hittites about 1300 B.C. began systematically to work the iron mines of Cappadocia. A letter is extant from Hattushil, a Hittite king (1289 to 1255 B.C.) to Ramses II, written in reply to a request from the Egyptian for iron; and the Hittite, diplomatic and polite, puts Ramses off. Yet the Hittite Empire, for all its wealth of iron, was broken up about 1170 B.C., though in Greece, where iron remained a rarity, the Achaean Empire lasted for about a century longer before the iron-using Dorians swept it away.

The iron age did not efface the bronze age so much by dint of better swords, harder lance-heads, and heavier axes as by the advent of hardier races.

It is indeed possible to trace a comparison between the dissolution of the old civilisation and the break-up of the Roman Empire. Both cultures gave way gradually before less civilised but hardier nations from the north, nations in the former instance armed with iron, in the latter instance coated in mail. As when Rome fell she left an eastern outpost in the Byzantine Empire, which handed on the tradition of the ancient to the modern world, so when the Achaean Empire fell it threw out an eastern post to Ionia, which handed on to classical Greece the traditions of Cnossus and Mycenae.

In Greece the curtain falls in the eleventh century on the Mycenaean world, which has a political geography corresponding with that of the Homeric Catalogue; it rises again in the eighth century on a new world, a world which is, geographically

speaking, the world of classical Greece. The Dorians are established in the Peloponnese, in Crete, and in numerous islands; Arcadia, Achaea, and Attica are the largest districts in which the pre-Dorian Greeks still hold their own, but the bulk of the old Aeolic and Ionic populations has migrated to the Cycladic islands and the coasts of Asia Minor, and has occupied and Hellenised many flourishing cities which had once been subject to the Hittite Empire. That empire has given place to two lesser kingdoms, the Phrygian dominion to the north, and the realm of Lydia, of which the eastern boundary was the river Halys, a river flowing through a district which had once been the heart of the dominions of the great kings of the Hittites.

Possibly the older Lydian royal house was of Hittite descent, for the last king of the dynasty that came to an end in 689 B.C. was called Myrsilus (as well as Candaules)¹, a name which had been borne by various Hittite kings in the bronze age. Herodotus, however, regarded the Lydians as kinsmen of the Carians and Mysians²; but this statement, if true, may mean no more than that the upper classes, the castes ruling those three nations, were of kindred stock. The bulk of the population of Lydia was probably descended from one of the larger Anatolian subject races of the Hittite Empire. By the eighth century the whole Lydian nation had come under the cultural influence of the Ionians of Asia, and was so completely Hellenised that Herodotus found little in its customs to distinguish it from Greeks³. On one point, however, the historian insists: "they were the first shopkeepers (or retailers)." If allowance is made for the fact that the civilisation of the bronze age was known to him only in myth and legend, and that he looked upon the Phoenicians rather as wholesale dealers and sea-traders, this statement is probably true, supported as it is by a statement of an early Ionian philosopher, Xenophanes of Colophon (*floruit ca. 550 B.C.*) whose writings are referred to by Julius Pollux⁴. The passage runs as follows:—"Perhaps some would think it ambitious to investigate this question, whether coins were first issued by Pheidon of Argos, or by the Cymaeian Demodice, wife of the Phrygian Midas, who was daughter of Agamemnon, king of Cyme, or by the Athenians, Erichthonius and Lycus, *or by the*

¹ Hdt. i, 7.

² i, 93, 94.

³ i, 171.

⁴ *Onom.* ix, 83.

Lydians, as Xenophanes asserts, or by the Naxians, according to the view of Aglaosthenes."

All of these claimants but two may be dismissed. Pheidon will be considered later ; but here it must be observed that the comparatively early date of Xenophanes as well as his Asiatic-Ionian nationality mark him out as an authority deserving of special confidence.

Until fairly recent times 700 B.C. was assigned as an approximate date for the beginning of coinage¹ and there seemed no reason to question such a date which had been adopted by the great nineteenth- and twentieth-century scholars like Head, Babelon, Hill, Regling and others. But a movement has now begun having as its purpose the lowering of the probable date for the first coins, and this has in some instances dropped, barometer-like, to an oddly low date. It is probably true that the earlier supposed figure of about 700 B.C. was too early. But the fact should be faced that archaeologists with experience in other fields, and having also some knowledge of coins, feel the wrongness of the early dating on subjective grounds *only*. Nevertheless there have been attempts to discover scientific justification for the feeling and for a fresh dating ; but the attempts have failed because a very false premise has been employed.

The question " how early did Lydian electrum coins begin to be made ? " still depends largely on the interpretation of finds made in 1904/5 on the site of the great Temple of Artemis beside Ephesus². " There, below the temple erected in the days of Croesus . . . the excavators found remains of three earlier structures. While clearing out these early buildings they found 87 electrum coins. Twenty of these were extracted from between the slabs of the earliest of the three buildings, five . . . were extracted from underneath the foundations of the second building, and all low down within the area of these three early structures³. " The following sequence of events must be recorded :—Gyges, the first of the Mermnad line, became King of Lydia in 685 B.C. During his reign Western Asia Minor suffered severely from raids of a barbarian people from south-eastern Europe named the Cimmerians, and in 652 B.C. they destroyed the ancient Temple

¹ But there were some who believed in a much earlier date.

² D. G. Hogarth and others, *Brit. Mus. Excavations at Ephesus*, 1908, pp. 74-93.

³ P. N. Ure, *Origin of Tyranny*, 1922, p. 128.

of Artemis beside Ephesus, and were about to lay siege to the city itself when they were annihilated by Ardys, the new King of Lydia, who reigned until 625 B.C., when he was succeeded by Sadyattes, who in 615 was succeeded by Alyattes, the father of Croesus, who became King in 560 B.C.

It is obvious that the date of the destruction of the Temple of Artemis beside Ephesus should give us some indication concerning the dates of the electrum coins which were found there in 1904/5. The excavators of the site, and most scholars who have since discussed the buried coins, have begun with the assumption that this burial was a "foundation-deposit," and though this label is convenient, it is quite arbitrary, since there is no warrant whatsoever for assuming that the burial was of such a kind. Foundation-deposits appear to be mainly, if not entirely, oriental in location, and this *cache* of coins in the sanctuary of Artemis has no connection with the kind of carefully-planned foundation-deposits that have been discovered at eastern sites in Mesopotamia, Persia and Egypt. The seventh- and sixth-century Artemis Ephesia was *not* an oriental goddess but Ionian Greek, and her celebrated statue began life as a Greek *kore*, carved by a famous sculptor, Endoios. The oriental trappings were later additions to the statue, and these have misled many into regarding the whole Ephesian cult as an eastern one¹. Parallels are to be sought not in eastern but in Greek sites. When the temple—and perhaps other sacred buildings within the holy precinct at Delphi—suffered damage, the Delphians rescued much gold-work, figures in ivory, and other objects of value, and hid them away under the paving of the Sacred Way, from which they have only recently been recovered. However, the best parallel is to be found in Athens itself. The Persians destroyed the Acropolis and all that stood on it in 480 B.C. When the Athenians were able to begin reconstruction two years later, they collected the broken remnants of statues and other votives given to Athena over a period of more than a hundred years, but destroyed by indignant barbarians, and buried them wherever soil could be found on the surface of the Acropolis itself. After this thirty-two years elapsed before the Athenians even began the building of the Periclean Parthenon.

Though the shrine and sanctuary of Artemis Ephesia was

¹ See Seltman, "The Wardrobe of Artemis", *N.C.*, 1952, p. 34f.

smaller than the Athenian Acropolis, it seems obvious that the Ephesians in 652 B.C. acted exactly as the Athenians were to act in 478 B.C. They collected fragments of ivory, bronze, silver, gold, and electrum pieces of money, accumulations of at least one-and-a-half centuries of votive gifts¹, now salvaged from barbarian ravages. Doubtless the Cimmerians had acquired some loot before Ardys attacked them, but all that the Ephesians were able to assemble they carefully incorporated in a new temporary structure in order to keep them within holy ground. What has been found at Ephesus is Cimmerian *debris*, just as what has been found on the Acropolis is Persian *debris*². And, even as many years elapsed between the destruction of the Cleisthenic temple and the building of the Periclean Parthenon, so many years may have elapsed between the burning of the Artemision in 652 B.C. and its rebuilding. But in both cases the *debris* was collected and buried promptly in holy ground. Of course, the inevitable deduction is that many of the coins belonging to the Cimmerian *debris* were minted some considerable time before 652 B.C., and the earlier specimens should be assigned to the reign of King Gyges (685-652 B.C.). Yet it would be hard to prove that they did not go back to an earlier reign.

Already before 1100 B.C. gold currency was circulated in the form of bean-shaped "dumps" [Pl. 1, 2], the use of which was continued in Ionia. There, however, as in Lydia, "white gold" was employed instead of pure gold, and the dumps must have been mainly of electrum, regarded as a separate metal because it was found in the rivers and mines of western Anatolia as a natural alloy. When a merchant received a dump he regularly weighed it until one day some Ionian hit upon a time-saving device. Why not mark every dump as it passed through his till? Then, if in the course of circulation—money was scarce in those days and handled by the few—it returned to him, he would know it again and need not trouble to weigh it afresh. How best mark the dump? An iron nail, filed half through and then broken would serve the purpose; it had a fractured surface which could not be imitated. Moreover, it could be struck with a hammer onto a small dump so as to make a single impression, or on a bean-shaped dump two impressions could be struck with the same broken

¹ Many of the objects are earlier than 700 B.C.; see P. Jacobsthal in *J.H.S.*, 71 (1951), p. 85 and footnote 2.

² The German word is "Perserschutt"; and the name for the Ephesian deposit should be "Kimmererschutt".

nail. That this at times actually was done is evident from such a piece as Pl. I, 25, where the two impressions side by side, made with the same broken nail, are clearly visible. For larger dumps [Pl. I, 8 and 10] a long-shaped iron punch was employed to indent the surface between the two small squares. The other side of the electrum bean or pellet was still rough or striated and devoid of any type. The dump [Pl. I, 2] had become monetiform [Pl. I, 8, 9] but it was not yet a "coin."

Then perhaps it was that the king of Lydia, his interest aroused by the Ionian merchant's simple way of marking his dumps so as to guarantee them for his own personal use and the use of his clients, conceived of a further improvement. Like all oriental potentates he was accustomed to pledge his written word on document or treaty by the application of the Royal seal. Why not affix the Royal seal, or a facsimile thereof, to the electrum entering and issued from the royal treasury and thus guarantee both the metal's quality and its weight?

The method was simple. "Nail-punches" like those of the Ionian trader were employed, but the dump of metal was placed over an intaglio, cut in an anvil, which bore the royal arms, and the punches then struck with a hammer. Thus the metal, squeezed between hammer and anvil, received punch-impressions on its upper side while its under side took on a design in relief [Pl. I, 11]. The "coin of the realm" was born.

The mercantile relations between Ionians and Lydians were of the closest, as is proved by the fact that both, at the time when they first began coining, employed the same monetary standard, the history of which can be traced back to the bronze age. At that time the Achaeans had employed large ingots, weighing $25\frac{1}{2}$ kilogrammes, which were reckoned as talents of copper¹. The metal which they used was extracted mainly from the rich mines in the island of Euboea, where a number of these large ingots have been found. From the Greek copper-island, Euboea, the Greek copper-talent of $25\frac{1}{2}$ kilogrammes got the name of "Euboic talent," and under this name became a regular weight; and then, with the great migrations, the Aeolians and Ionian Greeks took with them to Asia Minor their own weight-system, of which the heaviest unit was the Euboic talent. The talent became domiciled in Lydia as well as in Ionia, and on a

¹ See p. 5.

standard conforming to this talent the first coins of both countries were struck. Lydian-Milesian shekels, or *sigloi* as the Greeks later called them, to the number of 3600 went to make up a Euboïc talent, and each shekel weighed 7 to 7·08 grammes, while the larger coins issued in Ionia and Sardis were mainly double-shekels of 14 to 14·16 grammes.

At the time when the Lydians, or the Lydians and Ionians between them, first struck and began to employ coins both peoples must have been on friendly terms. Good relations between them were, however, during the seventh century B.C. intermittent. Scanty though knowledge of Lydian history is, depending on Herodotus and certain Assyrian records, it is possible to fix the periods during which the kings of Sardis looked with favour on the Greeks.

Before 700 B.C., probably, Candaules, who was also known as Myrsilus, the last king of Hittite name, came to the throne. During his reign the Cimmerian hordes from the north entered Asia Minor, made their head-quarters at Sinope and devastated cities and territories of west and central Anatolia. The story of Candaules' pride in his wife's beauty, of his folly which cost him his life, and of the accession of Gyges, chief of his body-guard and first of the Mermnad dynasty, to the throne is familiar from the opening pages of Herodotus. But one important point of this tale comes in at the end. Gyges, threatened by the nobles of Lydia, agreed to submit to the arbitration of Delphi the question of his right to the queen's hand and the throne; and so greatly were the Lydians under Greek influence that they were well satisfied when the Pythian oracle declared that Gyges should be king¹. This story Herodotus probably owed to the Delphian priesthood. The event may be dated about 685 B.C., before which date, that is to say during the reign of Candaules-Myrsilus, Greek and Lydian appear to have lived in concord. During the first decade of his reign Gyges reversed his predecessor's policy and attacked three Ionian cities², until the threat of a great Cimmerian raid from the north united Lydian and Greek against the common foe. The Cimmerian danger was not removed until Gyges' son and successor, Ardys, destroyed the remnant of those barbarous hordes before 650 B.C. This accomplished, Ardys renewed the Lydian aggression on two cities of Ionia.

¹ Hdt. i, 13.

² i, 14.

"The Lydian territory," says Herodotus¹, "does not present many wonders worthy of description, like some other countries, except the gold dust brought down from mount Tmolus." Not only was this gold dust, mixed with silver, washed down from the mountains in the sands of the rivers Pactolus and Hermus, near the junction of which streams the city of Sardis lay, but the metal was also mined in the ranges of Tmolus inland and of mount Sipylus near the coast. At the mouth of the Hermus lay the great Ionian city, Phocaea, and the gold-bearing ridge of Sipylus was in those days within the Ionian sphere of influence ; so that Ionian and Lydian alike had access to the wealth of nearer Asia.

Some authorities have claimed for the inhabitants of the Thracian coast the issue of electrum coins, but such pieces are not easy to date. The earliest coins which come from the Thracian region are small electrum pieces [Pl. I, 6, 7] weighing 7·0, 1·7 and 0·65 grammes, marked with the rough symbols of the Thracian sun-god who was worshipped on the Pangaeian mount², symbols which take the form sometimes of a rosette, sometimes of a swastika. Such rough coins might conceivably have been first issued by some dependant of a Phrygian Midas.

The history of currency during the centuries preceding the great period of classical Greece has now been briefly reviewed, and three essential economic facts have been elucidated :

the pre-dynastic Sumerians and Egyptians seem first to have used gold and to have imbued the human race with the idea of its value ;

the Semitic races developed the use of metal as a medium of exchange, and invented banking;

the Hellenised Lydians invented coined money, the influence of which on the history of civilisation was as far-reaching as the discovery of gold.

Henceforward the whole historical field opens up decade by decade affording an ever-clearer vision of the life and actions of mankind from Pheidon, king of Argos, to Octavianus Augustus, *Princeps* of the Roman Empire. Through the seven centuries which are comprised in this period Greek coins occupy a place

¹ i, 93.

² or on Mt. Bermion.

of which the historical importance can hardly be over-estimated. One city state after another, Hellenic and Hellenising alike, began the issue of a civic coinage, and jealously guarded, whenever possible, its monetary rights as the most conspicuous outward sign of its liberty. And, since the history of Greece is the history of the struggle for the political autonomy of the State and for freedom of thought, the student of Greek coins is concerned with the very tokens of that freedom, while he can discern in the long series of coins issued by states and kingdoms the rise and fall of each city and each realm.

B. MONETARY TECHNIQUE

A knowledge of the methods by which ancient coins were minted is essential to a clear appreciation of the historical value of Greek money; and, while some indication has already been given of the simple method first employed for punching electrum dumps, it will be necessary to give a little further consideration to the ancient mint and to the tools employed by the operatives in the mint.

A Greek mint (*ἀργυροκοπείον*) would normally be nothing better than a small hut of sun-dried brick, or a wooden shanty, containing in one corner a little clay-built furnace fed with charcoal.

The tools required were of the simplest; a balance (*πλάστιγξ, τάλαντα*) for weighing the metal "blanks" which were to become coins; a graver (*γλύφανος*) and little punch (*χαρακτήρ*), both employed for engraving dies; next, tongs would be needed for placing the "blank" upon the anvil (*ἄκμων*) in which was sunk the lower, or anvil-die (*ἀκμονίσκος*). Over the blank, as it lay upon this anvil-die was placed a large punch (*χαρακτήρ*) on the end of which [see Fig. 3] was engraved the upper, or punch-die, and the other end of this punch was struck with a hammer

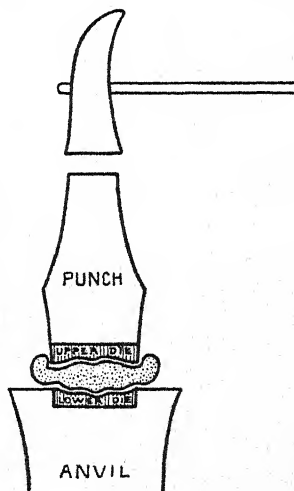


Fig. 3. Diagram showing Greek method of coining.

(σφύρα). Thus the hot metal "blank," squeezed between anvil and punch [see Fig. 3], received a design on either side and became a coin. Anvil-dies (ἀκμονίσκοι) and punch-dies (χαρακτῆρες), when not in use, were stored in a small wooden rack or receptacle known as ἀλαβαστοθήκη¹.

The "blanks," which in process of striking became coins, were at first simple "blobs" of metal like the Mycenaean gold dumps from Cyprus [Pl. I, 3], but as technical methods were developed the "blanks" were occasionally cast in moulds shaped so as to turn them out in the form of flanged bullets [Pl. I, 5], or they were cut with a file from bars of metal [Pl. I, 4]. At a later date "blanks" were frequently cast in perfectly circular shallow pits, the diameter of each pit being rather smaller at the bottom than at the top, whence the "blanks" and the coins themselves derived a neatly bevelled edge [Pl. LIII, 8 and Pl. LIX, 5]. This method of preparing "blanks" was, however, only commonly adopted in the Hellenistic age; and then mainly in Egypt and in Syria, where bronze coins of large size were in regular circulation.

The ANVIL-DIE produced the OVERSE of the coin, the PUNCH-DIE produced the REVERSE, and it is of the utmost importance for the study of ancient coinage to realise clearly that more punch-dies were required than anvil-dies. The latter did not easily wear out or break, owing to the protection afforded them by the surrounding mass of the anvils in which they were embedded; but the punch-dies, carved on the ends of slender punches, subject to the direct blows of the hammer, constantly split or broke. Their lives were short and they had frequently to be renewed².

It is owing mainly to this fortunate circumstance that ancient coins, though undated before the Hellenistic age, can often be arranged in chronological sequence. How this arrangement can be attained is explained in the accompanying diagram [Fig. 4], in which Latin capitals represent anvil-dies, Greek *minuscules* punch-dies.

¹ A. M. Woodward, *J.H.S.* xxix, 1909, p. 172 ff.; *I.G.* ii, 2, 665; *N.C.* 1911, p. 351 ff.

² They were not, however, always laboriously cut by hand in every detail. Hubs, that is punches with the design in relief, were often employed to make intaglio dies; e.g. at Athens (*Athens, its Hist. and Coinage*, p. 44), Leucas (O. Ravel, *N.C.* 1926, p. 320), Taras, Ambracia (O. Ravel, *N.N.M.* No. 37).

Die *A*, embedded in the anvil, endured longer than punch α , so a new punch, β , had to be made, and when that wore out, a third punch, γ . By that time *A* had served its day and was discarded in favour of *B*, a new die employed in conjunction with punch γ . When γ wore out, first punch δ , and then punch ϵ , was used before anvil-die *B* was thrown upon the scrap-heap to make way for a new die *C*. There is no need to go further in order to make it plain that the two faces of each of a series of coins tell the tale of the sequence in which dies were used, and consequently of the exact order in which coins within that series were struck. Whenever an exact chronological sequence of the coins

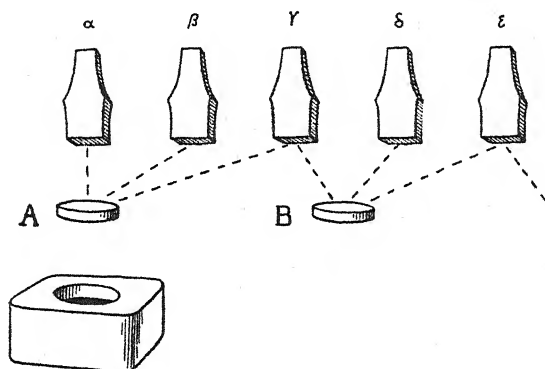


Fig. 4. The interlinking of obverse and reverse dies.

of any Greek mint is thus established by means of observation, it will be found that such sequences may shed upon art and history a flood of light such as no single specimens, however interesting in themselves, can supply. In fact "by this method, once a die-sequence is established, it has practically the value of a document not much inferior to an ancient inscription or text¹."

When the use of coined money had become general in the Greek world, it sometimes happened that the coiners in a particular mint saved themselves the trouble of preparing metal blanks, and employed instead the actual coins of some other city, heating them first in the furnace and then striking them between their own punch- and anvil-dies. When this occurred the original type can often be traced beneath the new type, and

¹ W. Ridgeway in the Foreword to C. T. Seltman, *The Temple Coins of Olympia*.

such coins, technically known as overstruck coins, are frequently of value for the establishment of chronology.

Occasionally the coins of one state were taken into the official currency of another state by a more simple process. A tiny punch was prepared, its head engraved with a minute design representing the badge of the second state, and this was hammered on to the coin of the first state. The impression thus made is known as a countermark. In this way, for example, the mint of Arcadian Mantinea, of which the coat-of-arms was a bear [cf. Pl. XIII, 13], countermarked with a little "bear-punch" some of the didrachms of Olympia¹, thus taking them over into the Mantinean currency. But these little countermarks were only on occasion, as in the instance just cited, official in character. Much more frequently they seem to have been the marks of private traders and bankers, who in many parts of the ancient world made a custom of countermarking coins. These bankers' countermarks bore the bankers' private blazons. As already pointed out the custom of applying rough private marks to metal currency preceded the actual invention of a state coinage, but as soon as the latter appeared with a definite blazon upon it, the trader, far from abandoning his habit of marking coins, imitated the state and henceforward decorated his little private nail-punches with his own blazon, employing them to mark both coined and uncoined metal.

This custom spread from Ionia and Lydia to Mesopotamia, for the imperial Persian silver coins of the fifth and fourth centuries were constantly defaced by private countermarks; and from Babylonia the custom passed to India, which, though it possessed no state coinage before the age of Alexander, was well supplied with a currency of silver and bronze pieces cut from rectangular bars and covered as they circulated with the little countermarks of many merchants.

C. THE ROYAL LYDIAN COINAGE

In Sardis, capital of the Lydian Empire, there seems to have been opened, at a date probably not far removed from 685 B.C., the first mint under **Gyges**, the first king of a line which the Greeks called Mermnad. The royal arms which the monarch placed on his electrum coinage were the forepart of a lion with

¹ *Catal. Weber Collection*, ii, Pl. 147, 4015.

gaping jaws [Pl. I, 11]¹. The dynastic change made no difference in the coat-of-arms and the Lydian king's successors in the Mermnad line continued to employ this old-established blazon of royalty², the lion, upon their coins up to the time when Croesus, the last reigning king, dedicated to Apollo at Delphi a model of the Lydian arms, "the figure of a lion of fine gold weighing ten talents³."

The attribution of the earliest electrum Lydian lion-stater to Candaules rather than to his successor, the usurper Gyges (*ca.* 685–652 B.C.), which was generally maintained, is perhaps, as pointed out above, more wisely abandoned. Gyges' son, Ardys (*ca.* 652–625 B.C.), crushed the barbarians in the second year of his reign, setting the Lydian kingdom on its feet once more. It is possible to assign with a greater degree of certainty various smaller lion-coins⁴ to the reign of **Ardys** and that of his son **Sadyattes** (*ca.* 625–615 B.C.), bearing always in mind that some of them may have been issued by Gyges.

Large numbers of electrum tritai, or "thirds" [Pl. I, 12], survive at the present day, a circumstance which makes it not unlikely that their issue extended over a period of some thirty or forty years; while extant barbarous copies of them [Pl. I, 14] are doubtless the work of the Cimmerians.

Two lions, or at least their foreparts, figured on the electrum staters of the next Lydian king, **Alyattes** (*ca.* 615–560 B.C.), who distinguished his money from that of his predecessors by causing his name to be inscribed upon it between the two lions. The royal name upon these coins can now be read with certainty, since the finest extant tritē [Pl. I, 13] has been the subject of

¹ Gyges, probably between 685 and 625 B.C. *Obv.* forepart of lion to r. *Rev.* Two small incuse squares flanking one rectangular incuse. EL. Lydo-Milesian stater; 14.11 grammes.

Though the customary abbreviations *obv.* and *rev.* are employed it must never be forgotten that the *obverse* is the product of the *anvil-die*, the *reverse* of the *punch-die*. The coin described below with the legend in Lydian script makes it certain that these lion coins are Lydian and not Greek.

² The royal lion upon the current shilling of to-day is thus but the descendant of the beast on the first coin ever struck.

³ Hdt. i, 50. *Cf.* also Hdt. i, 84 for the story of the royal lion carried round the walls of Sardis.

⁴ *Obv.* Lion's head r. globule on forehead. *Rev.* Two small incuse squares. EL. Lydo-Milesian Tritē (or Third). 4.7 g. Pl. I, 12 [found below the level of the archaic Artemisium at Ephesus]. Also *Obv.* similar. *Rev.* one small square, Hectē (or Sixth) 2.4 g., Hemi-hectē (or twelfth) 1.2 g. Myshemi-hectē (or twenty-fourth) 0.6 g., and a ninety-sixth, 0.14 g.

careful examination¹, and since the letters have been identified as $\Gamma\Delta\Gamma$ (= *Walwesh*), of which Γ , Δ , and Δ (= α) are peculiar to the Lydian script. The *-attes* portion of the royal name simply signifies "father". The reading makes certain the ascription of all these lion-type electrum coins to Lydia.

No specimen of the stater with this inscription survives at the present time, but that it once existed can be inferred from the study of one of the anvil-dies employed in the striking of the tritae. The blanks for these smaller coins were placed upon a large anvil-die in such a way that they received the impression sometimes of one lion and the royal name [Pl. I, 13], sometimes of the royal name and the other lion², but in no case could both lions be got on to a tritē. The anvil-die was too large because it was intended for the striking of electrum staters, which may one day come to light.

Silver seems not to have been minted by these early Lydian kings, who successfully met the demand for small change by the issue of fractions as small as $\frac{1}{10}$ th of a stater, a coin which it must have been hard indeed not to lose.

D. THE COINAGE OF THE IONIAN GREEKS

Miletus, a state possessed during the seventh century B.C. of exceptional wealth and commercial enterprise, was dominated by a mercantile oligarchy which may have begun to coin money perhaps almost at the same time as the Lydian king. An oligarchy of necessity entailed magistracies the tenure of which would be annual, as in most Greek states; and, if an annual executive magistrate was accustomed to set his personal seal to state documents, it was only natural that the magistrate appointed

¹ By the Lydian epigraphist W. H. Buckler. P. I, 13 formerly in the A. B. Cook collection. It was at one time customary to cast doubt upon the brilliant conjecture of J. P. Six (*N.C.* 1890, p. 207) that these letters on the coin stood for the name of Alyattes, a conjecture now completely justified. W. H. Buckler in *J.H.S.* 1926, p. 39 ff. expresses doubt as to the equation *Walwesh* = *Aly*... and proposes tentatively to equate it with *Alēs*, a river at the mouth of which the port of Colophon lay. G. F. Hill, however (*loc. cit.* p. 38), suggests that these coins may have been struck "somewhere in the interior, rather than in an Ionian coast town." I am inclined to agree, especially as the king's name may really have been *Walweshattes* in Lydian and its adaptation into Greek may have been bungled by contemporaries. In any case this coin, and with it all the lion-type series, are now proved Lydian.

² The coin showing the name and the *other* lion is figured in *N.C.* 1890, Pl. XVII, 6.

to superintend the city's mint at such times as an issue of coins was required by the state should set his personal seal upon the newly invented coinages, for by so doing he merely followed the precedent of the Lydian autocrat who could justly claim *l'État, c'est moi*.

For this reason we find on the seventh-century electrum coinage of the Ionian mainland a great variety of types which would be adequately accounted for by the supposition that Miletus, the greatest trading city, was at first the sole Greek mint¹. Moreover, it is somewhat unlikely that a host of Greek cities should have been so charmed with the Lydian monetary innovation that they would all rush to imitate the Sardian precedent by opening mints. Most of them would perhaps be content at first to continue their old custom of weighing bullion, or to use such coined money as came their way from Miletus or Sardis.

The blazons upon this Greek electrum display all the international characteristics of early Ionian art. Minoan in tradition are such heraldic types as the two lions' masks [Pl. I, 23] and the two confronted cocks [Pl. I, 15]; the stag [Pl. I, 19] in its crudity recalls the geometric draughtsmanship of Hellas; Assyria, which collapsed in 612 B.C., itself inspired such blazons as the four-winged deity [Pl. I, 24] and the winged "man-bull" [Pl. I, 25]². Miletus, the meeting point of Levantine trade, was

¹ Ionian electrum, perhaps all from the mint of Miletus between *ca.* 690 to 630 B.C. *Obv.* various blazons. *Rev.* Two small incuse squares flanking one rectangular incuse. Lydo-Milesian staters and half-staters. Types: (i) Stag grazing, above it inscription; (ii) ram couchant; (iii) two cocks confronted; (iv) two lions' scalps upwards and downwards; (v) forepart of horse; (vi) forepart of goat; (vii) ram's head; (viii) two eagles confronted, heads reverted; (ix) winged man-headed bull; (x) bull standing; (xi) half-figure of winged oriental deity; (xii) bitch couchant; (xiii) forepart of ibex. *Obv.* similar. *Rev.* Two small incuse squares. Lydo-Milesian tritai. *Obv.* similar. *Rev.* one incuse square. Lydo-Milesian $\frac{1}{8}$ th, $\frac{1}{12}$ th, $\frac{1}{24}$ th, $\frac{1}{48}$ th. Types: similar to those of nos. (i) to (viii) above though often only a part of the device appears. Add the following: (xiv) male bearded head; (xv) Gorgoneion; (xvi) Pegasus; (xvii) boar's head; (xviii) eye with two concentric lozenges.

It may be conjectured that staters corresponding to types (xiv) to (xviii) may yet be found.

The following are illustrated on the plates: (i) to (v), (viii), (ix), (xi), (xiv) to (xvi). Pl. I, 15 to 25.

² It was later the practice of other Ionian cities, Cyzicus, Phocaea, and also of Lesbos to issue electrum coins with a great variety of blazons, the change of type being annual. This Asiatic Greek custom may support the theory that the early electrum is also the product of a single mint.

also the melting-pot of Near Eastern art traditions, a fact confirmed by Ionian pottery as much as by Ionian coins.

Among the very earliest of these pieces must be classed a stater with a geometric-looking stag [Pl. 1, 19] above whose back appears the legend in Ionic characters from right to left $\Phi\alpha\epsilon\nu\sigma$ $\epsilon\mu\iota$ $\sigma\eta\mu\alpha$, "I am the badge of Phanes¹." This is the most ancient inscribed coin known, and the full import of its legend can best be grasped by comparing it with the legend on an archaic seal-stone, which reads $\Theta\acute{\epsilon}\rho\sigma\iota\acute{o}\varsigma$ $\epsilon\iota\mu\iota$ $\sigma\acute{\alpha}\mu\alpha$, $\mu\grave{\eta}$ $\mu\epsilon$ $\acute{\alpha}\nu\omicron\upsilon\gamma\epsilon$, "I am the badge of Thersis; do not open me²" [Fig. 5]. In either instance the inscription serves mainly to emphasise the fact that the device is the badge, seal, and sign manual of the individual.

The types of these early Ionian, and indeed of all Greek coins, are primarily heraldic, and not, as was once held, religious in character. A heraldic blazon may, of course, be at times religious in type like the owl of Athena or the St George's Cross; but the first figured on the money of Athens, the second appears in the centre of many of our florins, for no specific religious reason, but because each is the whole or part of the state's coat-of-arms.

Despots and democracies in ancient times tended to stamp their coins with civic blazons, oligarchies, on the other hand, generally, though not always, gave prominence to personal blazons of individuals of their class who were responsible, directly or indirectly, for the issue of money.

Such, it seems, was the procedure at Miletus until a revolution in the city about 610 B.C. set **Thrasybulus** at the head of the state as tyrant. The lucrative office of the oligarch mint-master vanished, and with it the coinage stamped with the mint-official's arms; for it is probable that Thrasybulus now introduced for the first time a Milesian coinage with a civic blazon, a lion couchant with head reverted. If he did so, he was anticipating by some eighty years the very procedure which Pisistratus was destined to adopt when he became despot of the Athenian state.

¹ G. Macdonald, *Coin Types*, 1905, p. 51 f., adopting B. V. Head's reading.

² *loc. cit.* The injunction "do not open me (i.e. unless you are the addressee)" would appear on any letter sealed with this signet. The illustration is from *Archäol. Zeitung*, 1883, Pl. 16, Fig. 19.



Fig. 5. Signet of Thersis.

The lion with head reverted [Pl. II, 1] is without any doubt the civic badge of the Milesians, figuring as the principal type of their coins from the time of Thrasybulus down to the age of the Flavian emperors of Rome. Some of the colonies of Miletus indeed paid their mother-city the tribute of placing, on occasion, her civic arms upon their own money, for the characteristic lion appears later both on silver minted at Cardia in the Thracian Chersonese [Pl. XI, 11, 12] and at Panticapaeum in the distant Crimea [Pl. XXXIX, 16], both daughters of the Ionian metropolis.

It is not to be supposed that the adoption of an official coinage led in any state to the sudden and complete abandonment of the older type of currency consisting of punch-marked metal "dumps." The latter continued for some time in circulation along with official money and both kinds of currency were frequently marked with private punch marks. Such punch marks appear within the incuse squares and rectangles of some of the staters, thirds, and sixths of Miletus, and may be private marks, or marks of the officials employed by the tyrants, who would naturally cause these officers' devices to be relegated to a subordinate position on the coin.

Ephesus fell under the rule of a despot at about the same time as Miletus, and the Ephesian ruler, following the example set by his Milesian "brother," apparently opened a mint. Under such a government it was natural that there should be adopted a blazon of civic character, the bee [Pl. II, 2], which remained the Ephesian arms for as many centuries as the badge of Miletus was the lion with head reverted.

The presence of a rectangular frame, which encloses alike the Milesian lion, assigned conjecturally to the reign of Thrasybulus, and the Ephesian bee, justifies the suggestion that the two issues were probably contemporary. Their weight standard too is the same; but the Ephesian pieces are of poorer electrum containing a greater proportion of silver than is present in the amalgam employed in the mints of Sardis and Miletus. There is no clear evidence for the existence of any Ephesian mint before the establishment there of the tyranny, and the first tyrant, whose name has been handed down, was a certain Pythagoras¹. He seems to have been succeeded by Melas who was son-in-law

¹ Baton, *F.H.G.* iv, 348, 2.

of the Lydian king Alyattes. To Melas or his predecessor should thus perhaps be attributed the electrum coins with the bee.

Three other Ionian states, besides Miletus and Ephesus, opened mints, perhaps before the close of the seventh century B.C. These were Phocaea, Chios, and Samos.

Phocaea. If the hypothesis, that the adoption of a civic device on coinage is more generally an indication of a despotic than of an aristocratic polity, be accepted, the conclusion drawn in the case of Phocaea may be that her coinage began when she was under a tyranny. Her first coins, of electrum, bear a national coat-of-arms, the obvious one for a state with such a name, a *Phōkē*, or seal [Pl. II, 3, 4, 5]. Such a blazon, which is in effect a pun on the name of its bearer, is in heraldry termed a canting badge. Two punches, one smaller than the other, were employed to mark the reverses of the staters; a single square punch for those of the smaller coins.

In addition to electrum, silver coins were issued, but perhaps not until early in the sixth century. Under the seal upon the electrum stater appears a *thēta*-like character which is apparently the Phocaic equivalent of *Phī*, the initial of the city's name.

Now while the electrum coins with the seal can be assigned with certainty to the Phocaic mint, there are others, of like or similar fabric and like standard, which may have been struck in the same city before a definite civic badge was adopted, or may have issued from the state of Mytilene, which in subsequent centuries regularly modelled its money on that of Phocaea. Among them are electrum staters with the following types¹: chimaera, fish decorated with woollen fillets, head of griffin and legend **ΙΡΟΜ**, lion's head with open jaws, centaur carrying a woman in his arms, cock carrying a shell in its beak.

These coins, like those of Chios to be described next, are struck on the so-called Phocaic-Chian standard, the derivation of which remains unexplained. It bore, however, a relationship to the Lydo-Milesian standard,

for 1 Milesian stater of	14.1 g.
plus 1 „ hectē of	2.3 g.
equalled 1 Phocaic stater of	16.4 g.

¹ E. Babelon, *Traité*, i, Pl. V, 2, 5, 7, 14, 17.

Furthermore, while 30 Milesian staters went to a Euboïc mina, 26 Phocaic staters went to make the same unit. Calculation as between the two currencies was, therefore, not beyond the range of simple mathematics.

Chios, which probably began to issue money about 625 B.C.¹, affords a notable exception to the rule that a fixed civic type is generally the product of a tyranny, for this state remained under oligarchic government for long after it first initiated a coinage. The Chians employed both electrum and silver for their money, utilising the obvious Lydo-Milesian standard for the former, and coining silver on the Chian standard which, derived as it was from the Phocaic, was very slightly reduced so that presumably 18 Chian didrachms of 7.87 g. might have the same purchasing power as one electrum stater of Milesian weight scaling 14.1 g. The Chian badge was a seated sphinx with curled wing, and this sphinx [Pl. II, 6, 7], a creature familiar in Minoan art, remained the type of the Chian money down to the third century A.D. The traditional history of the island insisted on its Minoan connections². It should be noted that 54 Chian didrachms of 7.87 g. made up an Euboïc mina.

Lydians, Milesians, Ephesians, Phocaeans, and Chians thus coined, all of them, on standards bearing definite relationships to the old bronze age Euboïc standard. The last Ionian state whose coins fall within this survey employed that actual standard in its original form.

Samos must have been the originator of a number of monetiform dumps [Pl. II, 8], most of which have been found in the island itself. In date these pieces, which for lack of a device cannot be classed as true coins, may be as early as the primitive pellets of Ionian mainland *provenance* described above, but their employment as money in Samos must have continued after the Ionians of the Asiatic mainland had already grown accustomed to coined money.

Demoteles, the contemporary of Thrasybulus of Miletus and Melas of Ephesus, was tyrant of Samos before the end of the seventh century. He, perhaps, or his successor, caused to be struck the first official Samian coins [Pl. II, 9, 10] with the lion's

¹ Cf. J. Mavrogordato in *N.C.* 1915-1918, *A Chronological Arrangement of the Coins of Chios*, and Mrs A. Baldwin Brett, *A.J.N.* 1914, p. 1 ff.

² Pausan. vii, 4 and 5.

scalp. This, once established as the chief Samian blazon, continued to decorate the city's coinage until she became merged in the Roman Province of Asia. As in Chios, silver coins were presently struck, as well as electrum pieces, and were continued into the sixth century [Pl. II, 11].

The origin and development of coinage on the eastern side of the Aegean has now been briefly outlined. It is time to trace its adoption and growth on the western shores of that sea.

CHAPTER III

THE EARLY SILVER COINAGE OF GREECE

A. OBELS AND OBOLS

It was from the Greeks of Asia, from the descendants of those Achaeans and Ionians who in the bronze age had produced the art of the Mycenaean age, that Greece herself learnt afresh wisdom, skill and expert craftsmanship. The influence of Asiatic on European Greece began during the eighth, and was in full force by the seventh century B.C.; and it was during the seventh century that this most ingenious invention, coined money, passed with other civilising influences from east to west.

Now Ionian Miletus had thought financially in terms of copper and of gold, metals characteristic of the bronze age civilisation which had employed the great Euboïc bronze talent and the little "Homeric" gold talent. Dorian Peloponnese could boast no mines of either copper or gold, and in financial affairs the Dorian tended to employ as a medium that metal, the very mark of the iron age, in which Peloponnese itself was rich.

Iron was mined in Laconian territory, in the southern spurs of Taygetus and Parnon which end in Capes Taenarum and Malea¹. It was, therefore, but natural that the Spartans, with the wealth at their disposal, should employ bar-iron as currency; and their conservatism, combined with their lack of any more precious metal, led them to continue the employment of iron money for four centuries after other Greek states had adopted coin; moreover the iron money of Sparta was symbolical to the other Greeks, as it is to us, of the iron discipline and the hard life endured by the citizens of Lacedaemon.

Plutarch ascribed to Lycurgus the law ordaining the use of iron currency which "was made brittle and intractable. Besides it was very heavy and troublesome to carry and a great quantity and weight of it had but little value." "Ten minas' worth required a large storeroom in the house, and a yoke of cattle to transport it²." Such was the sentiment woven around a practical

¹ Cf. Ardaillon in Daremberg-Saglio, *Dict. d. Antiq.* iii, p. 1850 b.

² Plut. *Lysand.* 17; *Lycurg.* 9.

local currency, of which specimens have been found in Sparta¹, a currency which was possibly kept in use for reasons of economic convenience rather than for the enforcement of a stern rule of life.

Certain it is that before coined money was used in Greece other states as well as Sparta, chief among them Sparta's great rival Argos, regularly employed iron spits as currency.

The Argive state was at the climax of its power under the Temenid king Pheidon, to whom widely varying dates have been assigned by chroniclers and historians, by ancients and moderns. In spite of divergent opinions among the latter and confused notions among the former there emerges one historical theory² which has the merit of clarity, the support of indirect archaeological evidence, and the confirmation of one of the most amazing numismatic finds on record. Indeed, a consensus of opinion among modern scholars places Pheidon king of Argos in the first half of the seventh century B.C.³

Pheidon "completely recovered the heritage of Temenos"⁴ which may have included the island of Aegina, at that time the most important trading-centre of continental Greece. The Argive king decided to adopt coined money, which was already in vogue on the other side of the Aegean Sea, and reasonably selected his chief market, Aegina, as the site for his mint. There was a Greek tradition which spoke in no uncertain voice on this subject, the tradition preserved in Orion's *Etymologicum* which quotes from the writings of Heracleides of Pontus, a famous scholar of fourth-century date, pupil of Plato and of Aristotle. The passage, which contains a discussion of the word "obolos," runs as follows:—"Obolos, derived through substitution of *o* for *e*; in former times people used a currency of rough spits; actually the Ionians say 'obelos,' we 'obolos.' Pheidon the Argive first of all men struck coins in Aegina, and having issued coins, he removed the spits and dedicated them to Argive Hera. But since at that time the spits filled the hand, that is the grasp

¹ Some are illustrated in my *Athens, its History and Coinage*, p. 120, fig. 67.

² That of Busolt expanded by P. N. Ure, *Origin of Tyranny*, p. 154 ff.

³ Pausanias' statement (vi, 22, 2) that Pheidon interfered in "the 8th Olympiad" is to be emended to "the 28th Olympiad," an emendation accepted by many scholars (e.g. Bury, Busolt, Curtius, Macan, Ridgeway, Ure, Wade-Gery, and Weissenborn). This gives a floruit of 668 B.C.; see *C.A.H.* iii, p. 539 ff. and p. 761; cf. also my *Athens, its History and Coinage*, p. 117 ff.

⁴ Ephorus, *ap.* Strabo viii, 358.

(*drax*), we, although six obols do not fill our hand, still call them a graspful (*drachme*) because of the grasping of them. Wherefore even nowadays we call a money-lender an obol-weigher because the ancients treated their spits as weights. Thus Heracleides of Pontus." Here is a good circumstantial account of what happened, and it would be most unwise to dismember this passage

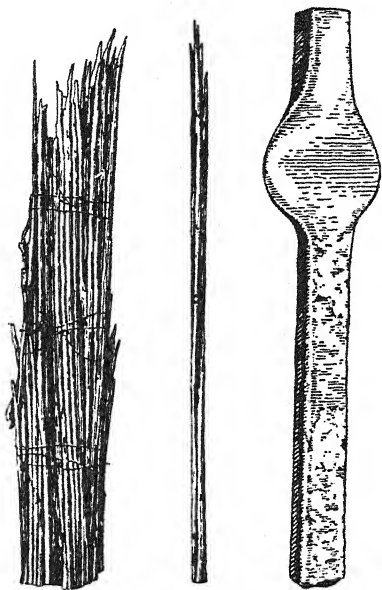


Fig. 6. Iron spits and bar from the Argive Heraeum.

in order to bolster up some novel proposition about Pheidon and Aegina. In the first place the spits have been discovered. On the actual level of the old temple of Argive Hera of Pheidonian date there were found the very iron spits, or "obeloi" [Fig. 6], to which Heracleides referred¹. Beside the great bundle of obeloi, originally 180 spits which had been bound with iron bands and bedded in a leaden base when they were dedicated, the excavators found another iron object, a great bar of rectangular section hammered near the upper end into a flattish disk and measuring about 1 metre 19 cm. in length².

So remarkable a dedication required an explanation and we may feel confident that Heracleides saw an inscription, probably in verse, and had it interpreted to him by the local priests, who in the fourth century B.C. were still using the uncouth Argive dialect in which Attic *obelous* would appear as *odelons*. To most of Heracleides' readers such a text would have been unintelligible and so he provided a paraphrase³ which emphasized the connection of Pheidon with Aegina. One must beware against using the supposed early date of Pheidon in order to assume that Pheidon could not have

¹ C. Walston, *The Argive Heraeum*, i, p. 62.

² *Athens, its History and Coinage*, p. 117.

³ See "NOTE" on p. 42 below.

coined in Aegina and then using an allegedly late date of Aeginetan coins in order to "rub out" any Pheidonian link with the island.

Three centuries at least before Pheidon there existed a remarkable confederacy of maritime states dedicated to the worship of Poseidon. The cult was centred in the rich and fertile little island of Calauria, now known as Poros, where the foundations of the god's sanctuary are still visible. The member states were the following :—Prasiae on the west coast of Peloponnese south of Argos¹, Nauplia port of Argos, Hermione and Epidaurus, respectively on the south and west coasts of Argolis, Aegina, Athens and Orchomenus. The inclusion of the last, hitherto always a puzzle, no longer seems odd since it has been shown that Athenians were probably settled there in the "protogeometric" period about 950 B.C.² An addition should tentatively be made to the seventh-century list of members of this "Amphictiony of Calauria," as the league was called. Calauria lay close to the coast only four miles from Troezen, which itself had a cult of Poseidon³, and which *originally* must have administered the sanctuary. Now Troezen was for long linked to Athens, and, within the confederacy, it is possible that states would drift into rival camps; for example Athens, Orchomenus and Troezen would tend to oppose Prasiae, Nauplia and Hermione (all Argives), while the island state of Aegina would hold the balance midway. Insufficient regard has been paid to a suggestion made thirty years ago⁴ that Pheidon established his sea-power by gaining control of the Amphictiony of Calauria, for it looks as though he deprived Troezen and made Epidaurus a member, leaving only two in the Athenian camp. Then Aegina came in as Pheidon's collaborator and Athens sustained a crushing defeat at sea from which she took some time to recover. It was doubtless immediately after this that the first coins were minted by agreement with Aegina where silver was stored and where trade was heavy; but the type of the coinage was selected as appropriate *not* to Aphrodite, the chief goddess of Aegina, but to Poseidon, god of the Amphictiony of Calauria. For the leather-backed turtle is heraldically appropriate to the sea-god. This gave the

¹ Much later owned by Sparta.

² V. R. Desborough, *Protogeometric Pottery* (1952), p. 299.

³ See the later coinage with a trident, Pl. XVI, 8.

⁴ By P. N. Ure, *Origin of Tyranny*, Appendix C, especially p. 330 f.

new money from the start a Peloponnesian character and explains why Pollux in his ninth book and 74th section wrote, "Some, again, have thought that the *Peloponnesian* coin was called 'a Turtle' from its type."

In Chapter II a new conclusion was put forward and it is now proposed to date the beginning of coinage in Lydia to about 680 B.C., while the earliest of the Greek Ionian electrum coins with a stag [Pl. I, 19], might be dated a decade later. The reverse of what appears to be the oldest Peloponnesian Turtle has affinities with the Ionian piece¹ thus suggesting for the beginning of coinage in Europe a date of about 665 B.C. when king Pheidon of Argos was still at the height of his power. The money was issued on what was later known as the Aeginetan, or Pheidonian standard, and the new silver drachm and obol appear to have been carefully adjusted. Just as the Ionian-Euboic system was evolved from a gold-copper ratio, so the Pheidonian was fixed by a silver-iron ratio², for the king's famous dedication to Argive Hera shows the following results :—

Iron	Divided by	Grammes	Silver
The large iron bar weighs 73,000 g.	400	= 182.5	= HALF A PHEIDONIAN MINA or 30 drachms
The whole bundle of spits, with the fragments broken from it, weighs 72,540 g.	400	= 181.35	= HALF A PHEIDONIAN MINA or 30 drachms
A "drax" of six of the best preserved specimens weighs 2418 g.	400	= 6.03	= ONE PHEIDONIAN DRACHM
An "obelos," estimated by the average of the same six weighs 403 g.	400	= 1.008	= ONE PHEIDONIAN OBOL

In every case the iron unit was exactly 400 times the corresponding unit of silver.

¹ N.C. 1950, Pl. XI, 1 and A.

² *I.c.* p. 118. The suggestion of A. M. Woodward, *Artemis Orthia*, p. 392 f., that the spits originally weighed less does not carry conviction. The corrosion on them would, if converted back into iron, merely add weight to the uncorroded metal, and we should be back approximately at their original weight.

B. AEGINA

Peloponessian pieces began, probably about 665 B.C., to be issued in **Aegina**, having as their type a leather-backed turtle¹ [Pl. II, 12, 13, 14, 15] which, as already noted was a suitable attribute for Calaurian Poseidon. The Saronic Gulf on the shores of which legend had placed the robber Sciron and his co-operator the gigantic man-eating chelonian, abounded then, as now, in turtles.

The mint-operatives of Aegina, who employed for the reverse a square-headed punch, cut into it four intersecting lines arranged in "Union Jack" pattern, and this served the purpose of preventing the punch from slipping on the metal dump when the latter was being struck. These eight radiating lines [*cf.* reverses of Pl. II, 12, 15] produced on the punch eight raised triangles and on the coin eight sunk triangles. But on the punch some of the raised triangles tended, after prolonged use, to break out. Hence on many of the coins we see some raised triangles in place of sunken ones.

Some time after the collapse of Pheidon's empire about 656 B.C. numerous neighbours of Aegina began a coinage based upon the Aeginetan model. Thousands of these Aeginetan turtles survive to the present day, since for two centuries they were coined in their annual tens of thousands from the silver owned by the wealthy island state, for the money of Aegina had on a small scale an international character. A typical hoard of silver coins found in 1923 at Andritsaena in Arcadia comprised numerous pieces of Philip of Macedon, over a hundred tetradrachms of Alexander the Great, and, in addition to Didrachms of Boeotia, Sicyon and Olympia of the fourth century, not a few Aeginetan turtles of seventh- to sixth-century date, so worn that the reptiles on them were barely discernible².

C. CORINTH

It would be satisfactory if one could date the beginning of coinage in the next important European Greek State a good deal

¹ *Obv.* Leather-backed Turtle (*Chelone caouana*) shown from above; the shell sometimes with central row of dots, sometimes with its 13 divisions visible as though under the leathern skin. *Rev.* Square incuse with raised lines in "Union Jack" pattern. AR. Pheidonian didrachm (Pl. II, 12, 15) *ca.* 12. 2 g.; drachm (Pl. II, 13) *ca.* 6.1 g.; half drachm or triobol; obol (Pl. II, 14) *ca.* 1.0 g.; half-obol.

² E. T. Newell, *N.N.M.* No. 21.

later than the beginning of the Aegina-Calauria silver, because the use of coined money grew, as is obvious, slowly. Like the Republican Romans, people were very suspicious of the new medium, and few states at first risked its adoption. But there is a piece of ceramic evidence which, if the ceramists are right in their classification, obliges us to date the first Corinthian coins to the middle of the seventh century B.C., since it is natural to look to Corinthian pottery for a parallel to the earliest kind of Pegasus, which is the type on Corinthian money. Yet, while no similar horse—winged or plain—can be found on “Corinthian” vases, a perfect counterpart exists on a “Middle Protocorinthian” aryballos in Boston of about 650 B.C. [Fig. 6a]¹. Since the first coins and this little vase-painting must be in date close to one another, one is driven to ascribe the first Corinthian coin-



Fig. 6A. From Protocorinthian vase

age [Pl. II, 16] to the time of Cypselus, who reigned from about 650 to 625 B.C. In shape and fabric the first of these coins is modelled on the Aeginetan-Calaurian money; but the standard differs, since it may be called a pre-Dorian, Mycenaean or Homeric standard, like that of the gold ingot found in Cyprus [Pl. I, 2], of 8.6 g. As for the type, Pegasus, the divine horse, was intimately connected in myth with the citadel and springs of Corinth. On Acrocorinthus, Bellerophon, it was declared, had made the horse captive. The φ , *Koppa*, under the beast is the initial of the city's name which was retained on the coinage down to the third century B.C., long after the archaic letter had fallen out of the Greek alphabet. From Pollux we learn that these coins were familiarly known as $\pi\omega\lambda\omicron\iota$, or foals².

Cypselus passed on the throne to his son, the famous Perianther (ca. 625 to 585 B.C.) whose reign saw no serious modification in the Corinthian types, except that the incuse assumed the form of a swastika [Pl. II, 17, 18, 19, 20] and that fractional currency

¹ K. F. Johansen, *Les Vases Sicyoniens* (i.e. “ProtoCorinthian”) Pl. XXX, 2b. Feet, tail, wing, hogged mane, correspond with the coin-type. Hogged manes are as early as ca. 700 B.C. See *ibid* Pl. XX, 1 b. H. Payne, *Necrocorinthia*, deals with later vases and is not relevant here.

² *Onom.* ix, 76.

now began to appear.

The Corinthian stater was divided into three, not into two, drachms, conforming thus with the Ionian method of subdivision; the half-drachm had a half-Pegasus for type. The issues of Periander were very abundant and many thousands of these silver "foals" passed in the course of trade to Sicily and Italy where they are found nowadays in numbers greater than in Greece.

D. ISLANDS AND COASTS

If the Aeginetan-Calaurian money was soon copied by the first Corinthian, it does not follow that other states were quite as quick as Corinth to copy the invention. Athens may have begun about 615 B.C.—half a century after her defeat by the Amphictions—to imitate the Aeginetan coinage, but comment on that must wait for the next chapter. Other independent states came in gradually; **Megara**, perhaps under Theagenes between 610 and 570 B.C., if a neat little group of silver pieces [Pl. III, 1, 2, 3] can with some probability be attributed to that city; **Carthaea**, on the island of Ceos, minting coins with a pointed earless wine-amphora for blazon [Pl. III, 5]¹; **Melos**, a prosperous island, producing an early didrachm [Pl. III, 4] with apple for type, though its later coinage bore a quince.

To the south-east of Aegina lies **Seriphos**, a small, but once prosperous isle whose early coins of Pheidonian type bore the type of a frog². *Βάτραχος Σερίφιος*, "a Seriphian frog," became a proverbial saying, applied to one who had "lost his tongue," perhaps because the most familiar "frogs" coming from the island, those upon her coins, were voiceless indeed.

Siphnos, famous in antiquity for her mines, struck coins bearing a flying eagle. Aegina probably had a claim upon the silver mines of Siphnos, which brought those islanders so great a fortune that, after dividing the profits among themselves³, they were able to erect at Delphi a treasure-house equal to that of the wealthiest city⁴. Indeed, when Samians had attacked Siphnos and raised a forced levy of 100 talents, the Aeginetans took vengeance upon them⁵, from which it may be concluded that Siphnos

¹ cf. N.C. 1926, p. 137 ff. At Megara one type showed Melicertes; at Coresia there were coins with a cuttlefish as type, and Iulis with grapes.

² J. N. Svoronos, *J.I.A.N.* i, 1898, p. 205 ff.

³ Hdt. iii, 57.

⁵ Hdt. 58, 59.iii,

⁴ Pausan, x, 11, 2.

was under Aeginetan protection.

Beyond these islands were other states which employed for a while the Aeginetan coin-standard for pieces of varying fabric ; among them **Thera**, **Cos** with a crab for type [Pl. III, 6], **Carpathus**, **Cnidus**, **Caunus**, **Ialysus** and **Camirus**, [Pl. III, 7] with a simple fig-leaf on its coins.

In this and the preceding chapter none but the chief issues have been touched upon and the circuit of the Aegean sea has not been completed. It is, however, more than a semi-circle. Reference has been made to the coins of Mytilene, Phocaea, Lydia, Ephesus, Miletus, Chios, Samos, Cnidus, and Rhodes, as well as to those of Aegina, Corinth, and the Isles. The two next chapters will supply the missing segment of the circle. The Aegean area was in one sense an economic whole because various standards locally employed adopted units of currency which had a simple relationship to the old Mycenaean Euboic talent, the sixtieth part of which was the Euboic mina of 425 g.

The relationship of all these local systems to this mina can be summarised in the table below ; for it may be the case that some such table could have been employed in the calculations of traders dealing with coinages in use around the Aegean shores.

Coins		Employed in	Each	Mina
100 Euboic	drachms	Samos, Athens, Cyrene	4.25 =	425
90 Paeonian	„	Macedon, Thrace	4.72 =	425
70 Pheidonian	„	Peloponnese, Aegean Islands, Athens, Crete, Rhodes, Megara	6.07 =	425
60 Lydo-Milesian	„	Lydia, Ionia, Rhodes, Melos	7.08 =	425
54 Chian	didrachms	Chios	7.87 =	425
50 Euboic	„	Samos, Corinth, Athens, Euboea, Cyrene	8.5 =	425
45 Paeonian	„	Macedon, Thrace	9.44 =	425
35 Pheidonian	„	Peloponnese, Aegean Islands, Athens, Megara, Crete, Rhodes	12.14 =	425
30 Milesian	„	Lydia, Ionia, Rhodes, Melos, Chios	14.16 =	425
26 Phocaic tetradrachms		Phocaea, Mytilene	16.35 =	425
25 Euboic	„	Samos, Athens, Euboea, Cyrene	17.0 =	425

NOTE. Since the first edition of this volume appeared in 1933 queries concerning the accepted dating of various early coins have been raised by some numismatists, abetted betimes by ceramists, who tend to regard pots as more reliable evidence for date-finding than coins. Numismatists, on the other hand, hold, for very good reasons, the contrary opinion. I have sought to show in Chapter II that any error into which scholars have fallen is due to the original distortion of calling the finds at the Artemisium by Ephesus a "Foundation Deposit" (which it is not) instead of "Kimmererschutt" (which it is). Mistaken dating of this leads on to mistaken dating of the first silver money of Greece, and consequently to inferences from coin incuse-shapes drawn in an attempt to show that Pheidon could not have ordered the coins, followed by an attempt to show that Pheidon had no sway in Aegina because the coins don't fit. This is circular argument. It is further stated that a dedicatory inscription by Pheidon to Hera concerning the spits and giving the interpretation preserved by Herakleides is unlikely to have existed. This is absurd since the whole point is that Argives spoke an odd dialect barely understood by speakers of Attic Greek, and the inscription would have to be translated. Mr. G. Woodhead allows me to quote a suggested dedication which he has written for me in the 7th-6th century Argive dialect:—

Ἡέρῃ τόνοςδ' ὀδέλους ἀνέθεν ῥὸνς παρλελάβεκα

Φείδων ποιῆεῃς νέον Αἰγίνευσι νόμισμα.

To Hera these obels, which he took over, were dedicated by Pheidon, who made new currency for Aeginetans.

Let it be clearly stated that this is not an extant inscription, but an exercise devised to demonstrate how a dedication might have been phrased in a dialect wherein *hons*, and *poiwehans* stood for *hous* and *poion*. The great bundle of spits and the bar (Fig. 6) would have been ridiculous without an inscription.

But of all the suggestions for "down-dating" early Greek coins the least fortunate is any attempt to lower the date of the first Corinthian money by reference to "middle Corinthian" pottery (dated to about 580 B.C.), whereas reference must be made to "middle Protocorinthian" pottery (of about 650 B.C.) as is proved by the painting (Fig. 6a).

CHAPTER IV

ATHENS ; FROM SOLON TO CLEISTHENES

A. THE EARLIEST COINS

DURING the first third of the seventh century Athens still retained the prosperity won from her pottery trade which began in the tenth century B.C. But the grave defeat she sustained at the hands of Aegina about 665 B.C., and her consequent separation from the Calaurian amphictiony, proved a set-back from which recovery was not achieved much before 640 B.C. But by then pottery for export was once more in evidence, and the production of coinage, perhaps as early as 615 B.C. was a venture due to a special circumstance. Alone of all states in mainland Greece, Athens possessed territorial silver mines. Later Aeschylus (*Persae*, 238) was to call them a "Treasure-house of the soil," and this metal naturally induced the state to adopt at an early date the use of coinage.

The first Athenian coins—didrachms, drachms and obols—showed a dumpy oil-amphora [Pl. III, 8]; the coins' fatness and their "Union Jack" reverses, indicated the influence of Aeginetan money; but the amphora reproduced fairly closely the shape of Athenian vases of the "horse-head" class, dated by ceramists to between 615 and 600 B.C.¹ Next came a change from "fat" to "thin" coins while the look of the amphora also changed, for it resembled vases of a class found in Italy as well as in Greece, referred to as "Tyrrhenian amphorae," now known to be of Attic manufacture. They are ovoid, have a raised collar where the body joins the neck², and are dated between 600 and 580 B.C., a date which seems in perfect agreement with historical and numismatic evidence. With regard to the fat, Aegina-like amphora coins, it should be noted that some scholars rejected the attribution made in 1924 of these to Athens, because they still thought of the city as obscure and almost tradeless in the seventh century. That view is dead, Athens was producing plenty of potters and painters, and we must face the fact that the dates of the coins and the vases must be

¹ Reasons for the approximate date are set out on p. 14 of my *Athens, its History and Coinage*, on which parts of this and some parts of Ch. VI are based. But see also *N.C.*, 1946, p. 97 ff.

² H. Thiersch, *Tyrrhenische Amphoren*, 1899.

about the same. The oil-amphora, in which the principal Attic export was frequently carried abroad, was as appropriate a blazon for the coins used by the Athenian merchants as was the silphium plant for the coins of the traders of Cyrene, or the tunny-fish for those of Cyzicus.

A change, however, was soon to be made, and a change fraught with far-reaching consequences for the future of Greek economic and political history.

This coined money so recently introduced was at first scarce, tending to accumulate in the chests of successful merchants and landowners. But men of small means soon became keen to obtain a novel and handy medium which was easier to use in the market than lump or bar metal. Accordingly the farmer or the artisan, in order to get possession of this new thing, money, mortgaged first his land and house, then his family and himself, and became enslaved to the rich. In Attica, the sole state of the Greek mainland which mined silver in its own territory, this change from simple barter to financial dealing in coin was more sudden and more severe than in other Greek states.

"Such then," wrote Aristotle¹, "was the condition of the State, and, as the many were in slavery to the few, the people rose against the upper class. The strife was bitter, and for long they were opposed to one another, until at last, by common agreement, they chose Solon to be mediator and Archon, and committed the whole constitution into his hands."

B. SOLON'S REFORMS

Solon in supreme control applied three remedies; the cancellation of debts involving the security of the debtor's person, a reform of the laws and the constitution, and a change in the currency. The words that tell of the last are contained in a much debated passage² of Aristotle's *Constitution of the Athenians*.

"Under him (i.e. Solon) the mina, which previously contained 70, was filled out, so as now to contain 100 drachms; whereas the ancient (i.e. probably pre-Solonian and Solonian) standard-coin was a didrachm³."

"The ancient standard-coin" has already been described.

¹ *Ath. Pol.* 5.

² Ch. 10.

³ ἡ μὲν πρότερον ἔχουσα σταθμὸν ἑβδομήκοντα δραχμὰς ἀνεπληρώθη ταῖς ἑκατόν. ἦν δ' ὁ ἀρχαῖος χαρακτήρ διδραχμον.

It was a unit of Pheidonian weight and fabric. Moreover 70 of these, as indicated, made a Euboic mina. Solon adjusted matters by increasing the number of coins which went to make a Euboic mina up to 100 pieces.

Now if we can envisage a man fortunate enough to possess 70 pre-Solonian amphora didrachms [Pl. III, 8], and another, even more fortunate, possessing 100 of the amphora coins next to be described [Pl. III, 9], and if each owner were to place his particular hoard each in one pan of a pair of scales, those scales would balance perfectly.

Athens, consequent on the Solonian reform, struck money from 594 to about 590 B.C. having on the obverse an oil-amphora with collar; the circle of a shield around it; and on the reverse a square incuse with raised lines, at first in "Union Jack" pattern with two bars wanting, then in "St Andrew's Cross" pattern.

The units were a silver Euboic-Attic didrachm of 8.60 to 8.23 g. [Pl. III, 9, 11]; and an obol, without a circle, of about 0.7 g. [Pl. III, 10].

That was the change brought about by the Solonian currency reform, the purpose of which was not to relieve debtors by lowering the value of the standard-coin, but rather to free Athenian trade from a weight-system such as linked the merchants to a local Peloponnesian standard which did not then extend beyond the Aegean Sea.

Instead the Athenian now had a currency based on the old and famous bronze-age "Euboic" talent and mina, and his standard-coin was of the same weight as those of Corinthians, Samians, and later of Cyrenaeans. But he retained the characteristic Pheidonian system of dividing his stater into two drachms and his drachm into six obols.

In art, as is well known, the meeting-place of the Doric and Ionic was Athens. At Athens too the rival systems of currency met and merged, for she began to coin on the Dorian system, whence she derived her obols, drachms, and didrachms, but under Solon's reform she went over to the Ionian system and adjusted her money to the Ionian Euboic talent¹.

The amphora remained the type—a type which we may now call the civic blazon—on the Athenian coinage for a little while

¹ *Athens, its History and Coinage*, p. 122.

after Solon's reform of the currency, and the coins themselves betray no alteration in fabric or technique, save that being lighter in weight they are a little thinner than the older pieces. But the civic blazon was shortly to disappear in favour of the badges of individual nobles.

C. THE OLIGARCHY

After Solon left Athens on his travels, "for four years," says Aristotle¹, "the city lived in peace, but in the fifth year after Solon's government they were unable to elect an Archon on account of their dissensions." "The people were again divided into factions while Solon was away, those of the Plain being headed by Lycurgus, those of the Shore by Megacles son of Alcmaeon²." Soon after Solon's departure in fact the Alcmaeonidae, who had been in exile, were back in Athens, a statement proved in a remarkable manner by the coins.

Fortunately we have in literature a record of the arms—or at least of one of the coats-of-arms—which the Alcmaeonidae bore in the sixth century B.C., for Aristophanes has preserved a reference to them. In a passage of the *Lysistrata*, where the old men in chorus try to hearten one another by appealing to memories of the past, they exclaim:

Come now *Leukopodes* ('Whitefeet' or 'Whitelegs'), now 'tis our duty, who went to Leipsydrión in the days when we still were men, now 'tis our duty to grow young once more;

and on this the scholiast gives an illuminating commentary which runs as follows: "Whitelegs, on account of their having a white badge upon their shields; Aristophanes means the people now known as Alcmaeonidae³." Thus from Aristophanes and the Scholia it is possible to gather the clear information that the *episemon*, or device, on the shields of the Alcmaeonidae was a design of white legs or of a white leg. It is remarkable how frequently this badge, whose popularity had survived to the days of Aristophanes, appears on Attic black-figure and red-figure vases of the sixth century B.C. [Fig. 7].⁴

Now the important fact is the following: the *last* of the light Solonian amphora didrachms [Pl. III, II] shares a punch-die

¹ *Ath. Pol.* 13.

² *Plut. Sol.* 29.

³ For a fuller discussion see my *Athens, its History and Coinage*, p. 21.

⁴ Reproduced by kind permission of the Syndics of the Cambridge University Press.

with a *triskeles*, or "three-legs" didrachm [Pl. III, 12]. Therefore the latter succeeded immediately to the former and can be dated with great probability to about the year 590 B.C. In that very year the Alcmaeonid Megacles was leading the most powerful of

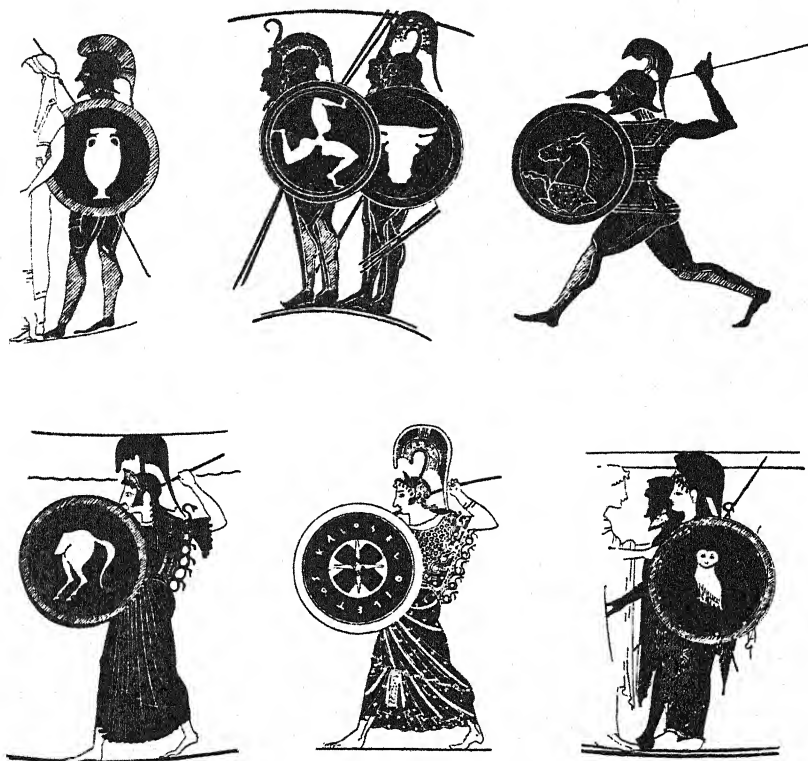


Fig. 7. Shield-signs on Attic sixth-century vases.

the Athenian parties, and he certainly seems to have left on the Athenian coinage the device of his family, who were nicknamed "Whitelegs."

From this time on there were issued a series of Athenian oligarchic coins displaying a not inconsiderable number of devices, including the forepart of a horse, its hindquarters, a wheel, a beetle, an astragalos, and a bull's head [Pl. III, 13, 14, 15, 19].

Numbers of these types can be arranged in a rough chrono-

logical sequence owing to the circumstance that the same punch was at times impressed upon coins which bore two or more different blazons¹.

It must not, however, be thought that Attic vase-painters, who frequently depicted the same blazons [Fig. 7] copied coins; nor that die-engravers copied vase-pictures. Rather both coins and vases had a common prototype in the personal charges of the noble families of Athens. For the existence of these family blazons there is some evidence in literature, and the conclusion is that the mint-masters of the old Athenian oligarchy placed their family crests upon the coins, while they and their retainers had these same charges painted upon the shields which were familiar sights in the streets of Athens². It was the very familiarity of these same pictures which induced Athenian vase-painters to adorn the shields of hoplites, of heroes and of Athena with popular blazons of the day³.

Of a sudden there appeared in Athens alongside of these simple, one-sided, silver two-drachma coins pieces of a very different kind. They were large, fat, two-sided four-drachma coins:—Athena's head on one side, her owl on the other [Pl. III, 16, 17] and beside the bird a sprig of the sacred olive and three initial letters of the city's name⁴. Any attempt—and such has been made—to push these coins back as far as 594 B.C. is illogical and perhaps a little insensitive. The flash which caused the invention of such coins as these came from a mind far different from that of Solon. That worthy was no Reformer, but a man who coped with a crisis by means of an economic purge followed by an emulsive in the form of old coinage newly orientated.

¹ *Op. cit.* Introd. and Chapters II to VII and figs. 5, 12, 14, 36, 38.

² Individuals in other Greek states did display blazons similar to those used by Athenians. But since all our heraldic coins are of one fabric, weight-system and style, and since their devices appear on Attic vases (some of them on Attic only), one must assign them to Athens.

³ H. R. W. Smith, *New Aspects of the Menon Painter* (Berkeley, Calif., 1929), p. 55 f. has shown that the use of the *triskeles* and other blazons by certain vase-painters might indicate their political sympathy with Alcmaeonid or other factions.

⁴ Obv.: Head of Athena to r., the eye full and globular, lips thick, ear large, with earring. She wears close-fitting Athenian helmet with neck-piece and crest, on the back of the helmet a small volute. Rev.: $\Delta\Theta\epsilon$ to r. down. Owl r. head facing and large, tail short. Above, l., an olive on stalk between two leaves. Incuse square. Tetradrachm ca. 17.0 g. [Pl. III, 16]; drachm ca. 4.25 g.; obol [Pl. III, 17]; half-obol. Another tetradrachm [Pl. IV, 1], rather coarse.

The real Reformer twenty-eight years later was Solon's kinsman, Pisistratus, who, though himself an aristocrat of ancient lineage, took up the cause of the common—and still rather oppressed—people of Athens. Such a procedure earned him and his memory the fear and hatred of his peers and attached to him the label, later opprobrious, of “tyrannos”¹. Yet no modern historian can deny the fact that Pisistratus ruled Athens by the will of the people—certainly of a great majority of the people.

D. ATHENS UNDER PISISTRATUS

He first became famous when in 570 B.C. he captured by stratagem for Athens the large island of Salamis², which Megara seems to have seized when the Athenians were weak nearly a century earlier. Then, while the other noble families were competing for influence and intriguing against one another, Pisistratus, brilliant, accomplished and bent on getting power, formed an independent party and came out on top of his rivals. By 566 B.C. it is obvious that he was already in complete control of the state machinery including the state religion, for in that year, in the archonship of his friend Hippocleides, he founded the celebrated quadrennial festival known as the Greater Panathenaia. There can be little doubt that in that very year and for that great occasion the new and sensational coinage was brought into being. It was important, by means of the Panathenaic Procession, games, prize vases and the coins, to encourage the love of the people for their own goddess, Athena. Her cult appealed to them more strongly than that of old heroes of oligarchic folk-lore like Boutes or Erechtheus, and it was Pisistratus who promoted that cult. Too late members of rival noble houses woke up to the fact that one man held all the power and assassination was attempted in 561 B.C. Though wounded he escaped, and the indignant People voted him a bodyguard³. Since in later times such a guard was held by democrats to be the hall-mark of tyranny, the supposed despotism of Pisistratus was said to have begun in that year.

¹ A loan-word, probably from Lydia where it simply meant “king”.

² Details in *Athens, its History and Coinage*, p. 30 ff.

³ See *N.C.*, 1946, p. 101. This occurred in the Archonship of Comias.

After a brief retirement from the city, which he probably spent on his estate in Attica, Pisistratus returned and for five years, perhaps, held the kingdom in Athens supported by the Alcmaeonid Megacles, until there occurred a permanent breach between the two great men. Megacles joined forces with the leaders of the opposite oligarchic faction, and before any violence could occur in the city Pisistratus retired voluntarily about 556 B.C., leaving Attica altogether, and relinquishing his lands and his silver mines to the oligarchs, who once more governed Athens.

E. THE INTERREGNUM

The mint now seems to have issued some coins with national blazons such as an owl and a gorgon's head [Pl. III, 18, 20], as well as others with family badges, like a bull's head which shared a punch-die with the owl-coin [Pl. III, 19, 20], and which as a canting-type would have been suitable for the clan of the Eteobutadae, descendants of the mythical "cow-herd" *Boutes*¹. Pisistratus and a large body of adherents had left Athens, it seems, in 556 B.C.², and after visiting Eretria and Rhaecelus, he settled in the Pangaeon district³. The silver mines of Pangaeon had probably been his goal from the time that he left Athens; for his power there had been partly founded in silver mines, and by means of silver dug from mines of greater wealth than those of Laurium he meant to regain his lost power⁴. Whether or no he actually minted coins in Thrace is uncertain, for all surviving accounts of what happened between 560 and 550 B.C. are a little muddled by later democratic Attic propaganda. It is not possible to reconcile the conflicting statements of ancient historians, each of whom—like their modern counterparts—had often a special point to make. Some of them said that Pisistratus was absent for ten years. But the figure "ten" is suspicious; Solon was said to have taken ten years absence. When Cleisthenes invented ostracism, unwanted politicians had to absent themselves honourably for ten years. But one is obliged to doubt the too-symmetrical pattern which gives to Pisistratus

¹ *Athens, its History and Coinage*, p. 47 ff.

² This dating follows F. E. Adcock in *Class. Quart.*, 1924, p. 174 ff.

³ *Aristot. Ath. Pol.* 15.

⁴ *Hdt.* i, 64.

also a decade's exile. Indeed there exists no evidence for so long a break in the "Royal" coinage with its Athena and owl types, neither is there any evidence for any falling off in Athenian pottery, painting and sculpture such as prolonged kingly absence might well have produced. Anyhow, about the middle of the century Pisistratus landed at Marathon, beat the oligarchs at Pallene, re-entered Athens, and reigned there successfully until his death.

Megacles and the whole Alcmaeonid clan accompanied by not a few of the other nobles fled the country, and the Alcmaeonidae probably settled, as they had perhaps done nearly half a century before, in Phocis.

F. ATHENS UNDER PISISTRATUS AND HIPPIAS

The "owls," struck during the nineteen remaining years of the king's undisturbed rule in Athens, bore on their obverses small heads of the goddess delicately drawn, instinct with all the charm of archaic Athenian art [Pl. iv, 2, 3, 4]. With the accession of Hippias¹ in 527 B.C. there was no perceptible change in the coinage, but the heads of Athena grew larger as time went on, being generally too large to be completely accommodated upon the small thick flans of the coins [Pl. iv, 5]. Early in his reign, however, Hippias seems to have instituted the practice of coining at times specially handsome pieces [Pl. iii, 6, 7]². Not improbably the occasion or occasions which called forth these exceptional coins, the work not of mechanics but of skilled engravers, were the four Greater Panathenaic Festivals which were celebrated under his rule, the first in 522, the last in 510 B.C. Such coins as these show art in its most satisfactory aspect—archaic art, still struggling to achieve and therefore essentially more vivid and vital than an art that is surfeited with attainment.

Meanwhile from Delphi, where the Alcmaeonidae, captained by Cleisthenes, their friends and their followers were ensconced, came the forces which overthrew the Athenian tyrant. The Alcmaeonidae, having secured the contract to rebuild the temple

¹ For the latest discussion of the so-called Hippias reform of the currency, which was in effect no real reform, cf. *Athens, its History and Coinage*, p. 77 f.

² *Op. cit.* p. 72 ff. and Group H on Pls. XIII, XIV.

of Apollo, embezzled the god's money¹, which they employed to hire mercenaries by whose help, as well as by that of Sparta, they defeated and expelled Hippias. Some of the coins struck to pay their troops survive; little electrum pieces, a metal of which the Delphians had large hoards², marked with the same blazons which had figured on some of the last silver coins the oligarchs had struck just before the father of Hippias drove them into exile; conspicuous among the devices on the electrum being the Athenian owl, the Alcmaeonid leg, and the Eteobutad bull's head [Pl. iv, 8, 9, 10]³. The first of these bore on its reverse the initial letter of the Delphian name.

G. THE RESTORED OLIGARCHY

Back in Athens in 510 B.C., the aristocrats, with the help of a certain Isagoras, who had probably been in Athens under Hippias, re-established the oligarchy for three years, opposing the policy of Cleisthenes the Alcmaeonid, who planned to replace tyranny by democracy; and during these three years the old aristocratic types were revived on the official Athenian silver money.

In fact the victorious nobles marked their triumph by the issue of a special coinage; yet, while they revived their own old types of thirty-five years before, they retained the denomination and the mint-technique of the exiled tyrant, for instead of their own old didrachms they issued tetradrachms, instead of thickish coins they minted widespread pieces with flat or bevelled fields around their incuse squares⁴. On the obverses of these coins there appeared a facing Gorgoneion; and on the reverses, within an incuse square, at first a bull's head facing, and later a lion's head and paws facing [Pl. iv, 11, 12].

If we are right in regarding the bull's head as an Eteobutad blazon the inference would be that the chief member of this clan, who had shared the Delphic exile with Cleisthenes and had set his badge upon some of the little electrum coins, deserted the Alcmaeonid cause and allied himself with Isagoras. It is in any case likely that this would happen, for the Eteobutadae had ever been the mainstay of the oligarchic cause. Isagoras, leader of

¹ This is implied by the historian Philochorus *F.H.G.* i, 395 and by other passages, cf. *Athens, its History and Coinage*, p. 80, note 4.

² *Op. cit.* p. 79.

³ Cf. p. 50 above.

⁴ *Op. cit.* p. 87.

the reaction, was, it seems, responsible for this money with the facing Gorgon's head, a type in itself a revival of the last old aristocratic issue [Pl. III, 18], while it is not impossible that the reverses, which, all but the first with the Eteobutad bull's head, bear the facing head and paws of a lion, give us the blazon of Isagoras himself¹.

Feeling his position to be far from secure and aiming perhaps at becoming tyrant of the city, Isagoras called on Cleomenes, the Spartan king, for support; and a Lacedaemonian garrison occupied the Acropolis. The exasperated Athenians promptly besieged the intruder in their citadel while it was possibly at this juncture that Cleisthenes returned, hoping that at last his opportunity was at hand.

The siege ended in the capitulation of the Spartan, who was allowed to withdraw in 507 B.C. with Isagoras, though the partisans of the latter were slain. Thus it came about that, under the aegis of the Alcmaeonidae, democracy was first established in Athens.

Turning aside for a short while from Athenian history we have now to review the progress of monetary affairs in the other states of Greece.

H. THE NEIGHBOURS OF ATHENS

Aegina², the most important of these, continued her turtle-coinage. This, during the latter half of the sixth century, was modified only by a certain conventionalisation of the reverse incuse which, growing more shallow, was always divided by five bars [Pl. IV, 13].

Corinth³ adopted a more important innovation in her coinage, obviously under the influence of Athenian money. These two currencies were particularly well fitted to circulate side by side, since two Corinthian staters exactly equalled an Athenian tetradrachm. But Pisistratus, when he introduced the latter coins, had not only initiated the first money bearing two types, but had also slightly raised the Attic standard, probably because the increased output of the Laurian mines was lowering the value of silver. The Corinthians, freed since about 580 B.C.

¹ *Op. cit.* p. 87 ff.

² The earlier Aeginetan money is described on p. 38 f.

³ Cf. p. 39 for first Corinthian issues.

of their tyrant, were faced with the necessity of following the Athenian lead lest their money should be embarrassed by a superior currency. Thus, from about 540 B.C. onwards they issued coins of slightly increased weight having two types; Pegasus and the head of a goddess [Pl. IV, 14, 15].

The adoption of a reverse type called for a change in mint-technique. The older thin fabric had to be abandoned; dumpy blanks, suitable for receiving the impress of a small deeply-cut square punch, being now in vogue. In spite of this, however, Pegasus is little changed in appearance [cf. Pl. II, 17]. As for the reverse—the head of Athena Chalinitis¹ suggested by the coinage of Athens—this was given a Corinthian character by capping the goddess with a helmet of Corinthian shape. The goddess whose bare head appears on some of the drachms and half-drachms is probably the well-known Corinthian Aphrodite.

The middle of the sixth century B.C. saw the beginnings of coinage in Euboea and in Boeotia. In the long island the most flourishing city was **Chalcis**, which from about 550 to 507 B.C. issued a coinage the obverse type of which was the eagle and serpent of Zeus Olympios², whose cult at Chalcis is well attested. On the reverses of the Euboic tetradrachms, didrachms and smaller silver pieces of this mint appears a wheel of either five or four or three spokes and the letters **ΨΑ**, all this in a shallow incuse triangle or incuse square [Pl. IV, 16, 17]. It should be noted that **Ψ** or **Ψ** represents *chi* in the Chalcidian alphabet. The city, as will presently appear, became subject to Athens in 506 B.C. when her coinage ceased; and the abasement of Chalcis meant the aggrandisement of her Euboean rivals Eretria and Carystus, which both began after 506 B.C. a coinage an account of which must be reserved for subsequent mention³.

In Boeotia a few years at most before 550 B.C. some of the small agricultural municipalities, which united for worship and for military action in that loose-jointed confederacy called the Boeotian League, began to use coined money. The most prosperous of these municipalities at that time was perhaps Tanagra, which, on account of its proximity to the harbour town of Aulis and its control of the fertile region of Oropus, was apparently

¹ Pausan. ii, 4, 1.

² Cf. the same types on coins of Olympia, below, p. 96.

³ p. 83 f.

a flourishing trading town¹. Aulis, indeed, was the sole Boeotian harbour which gave direct access to the Aegean, and by means of Aulis Boeotia could communicate by sea with her friend Aegina, from whom she borrowed both the standard and the fabric of her first coins. Attica, the mutual foe, could be passed by on the landward side.

For the first time in history there now appears a definite **League Coinage**. The religious centre of this league might lie at Coronea, the centre of political gravity might be with the "predominant partner" at Thebes, but the commercial centre of the league was possibly at Tanagra²; and, since money exists for commerce, the earliest mint of the league may possibly have been at Tanagra too.

Indeed, the Boeotian coins minted before 507 B.C. betray, all of them³, a uniformity of style and fabric so striking that the temptation is strong to assign them to a single mint⁴. It is, therefore, not unjustifiable to suggest that the Tanagreans may have minted for the use of all the Boeotian League coins with the Boeotian shield and a reverse, like the Aeginetan, of "Union Jack" pattern. The earliest were without inscriptions [Pl. v, 1] but were soon followed by coins with the letters TT, or TA (for Tanagra), or Η Η (for Haliartus) in the openings of the shield.

Since the meeting-place of the League was at the sanctuary of Athena Itonia near Coronea⁵, and since a shield was one of the most frequent attributes of the deity, this type of buckler which was, like the goddess Athena herself, of Mycenaean origin⁶, seems to have been selected as the suitable emblem of the confederacy. Moreover as a coin-type it possessed some commendation by reason of its resemblance to the turtle-badge of Aegina on whose coinage the Boeotian was modelled.

It was not long before the federal mint was called upon

¹ Even in the second century A.D. the people of Aulis were chiefly potters. Pausan. ix, 19, 8.

² Though the Tanagreans were mainly farmers, not manufacturers (pseudo-Dicaearchus, *Geogr. Graec. Min.* i, p. 101 f.), in the third century B.C., their earlier coroplastic industry is proved by the famous Tanagra figurines as well as by the Boeotian—probably Tanagrean—imitations of Attic pottery, black-figured and red-figured.

³ Except those of Orchomenus described below, p. 56.

⁴ The people of Heraea from about 500 B.C. onwards struck coins for the use and in the name of all the Arcadians. See p. 97.

⁵ Pausan. ix, 34.

⁶ M. P. Nilsson, *The Minoan-Mycenaean Religion*, p. 415 f.

between 550 and 508 B.C. to provide money for other members, in fact to produce individual issues for six cities and a specific league coinage as well. The incuse reverse now became a conventionalised mill-sail pattern in the centre of which a letter could appear, and in this position there occurs either **Φ** for Pharae, **Α** for Aulis¹, **Η** for Haliartus, **Θ** for Thebes, **Μ** for Mycalessus, or **Ρ** for Coronea [Pl. v, 2, 3, 4, 5]. The special League coins had the letters **ΒΟΙ** in monogram in the centre of the reverse; and it is one of these coins with its double legend, **ΤΑ** on the obverse **ΒΟΙ** on the reverse [Pl. v, 6], which supports the suggestion that Tanagra may have been the minting-place of the Boeotian League coinage, while another bears in fuller form the name of the political head of the confederacy, **ΘΕΒΑ**. The mill-sail pattern on the reverses of these pieces is evolved from the older "Union Jack" type of square.

From all this organisation, political and commercial, one city held aloof. **Orchomenus**, an ancient city of the Minyans, would have no dealings with her neighbours, though the fact that she once had been, with Athens², a member of the ancient maritime confederation of Calauria, possibly induced her to adopt for her first coins Aeginetan weight and fabric. About 550 B.C., perhaps, she began an issue of obols—an inland agricultural state required nothing bigger than a small marketing coin—on the obverses of which was a sprouting corn-grain and the letter **Ε** (Erchomenos was the correct name) and on the reverses the typical Aeginetan punch-mark [Pl. v, 7]. The Erchomenians were not members of the League and scorned its symbol, the Boeotian shield.

Tanagra in Boeotia perhaps, and Chalcis in Euboea with certainty, were well established by 510 B.C. (the year which saw the liberation of Athens from the tyranny) as the two principal coining states of Central Greece. They looked not without envy upon their more prosperous southern neighbour enjoying the riches of her Laurian silver mines, and when Sparta proposed that a combined effort should be made to crush the upstart Athenian democracy and restore autocracy in Attica, the merchant knights of Chalcis launched their ships with alacrity, while the farmers and traders of Tanagra induced the Boeotian League to mobilise its army for a grand attack upon the Athenian state.

¹ I prefer to assign this earliest coin with "A" to Aulis rather than to the more obscure Acraephium.

² See p. 36 above.

The Boeotians and Chalcidians under this Spartan stimulus concluded a definite alliance which was commemorated on numismatic monuments. The first of these are tetradrachms, struck upon the Attic standard then in use in Euboea, with the wheel (the reverse type of other Chalcidian coins) upon the one side, and the Boeotian shield upon the other. In the centre of the shield is the letter **Ψ**, the *chi* of the Chalcidian alphabet, initial of the city's name [Pl. v, 8]. This coin was struck in Chalcis in 507 B.C. to commemorate the alliance, and its fabric is instructive; for, like the tetradrachms of Hippias and Isagoras issued from the Athenian mint, it is of the wide-spread fabric which enabled both types to appear complete within the field. This alliance piece, which can be exactly dated, constitutes a *terminus ante quem* for all other coins of the same fabric, which was soon abandoned by the Cleisthenic democracy. Simultaneously with the Chalcidians the Boeotians minted at Tanagra, the city nearest to Chalcis, complementary coins struck upon the Pheidonian standard current in Boeotia [Pl. v, 9]. As the Chalcidians put the Chalcidian initial **Ψ** upon the Boeotian shield, so the Boeotians put **BOI** or **TA** within the Chalcidian wheel, and each state adhered to its own monetary standard¹.

Athens, by the refusal of her friend Corinth to take part in the Peloponnesian attack, was saved from the southern army which threatened her, and was enabled to turn her forces against the northern combine. The Athenian army dealt with its enemies singly, defeating first the Boeotians near Tanagra, and then, after crossing the Euripus the same day, the Chalcidian forces.

Chalcis sustained a shattering, the Boeotians a formidable blow: the former became subject to the Athenians and lost her fleet; of the latter, the Tanagreans at least forfeited both Oropus and their short-lived commercial prosperity.

An unfriendly Athenian colony on the Euripus could only interfere with the trade of Aulis; and Tanagra, sinking back to a country town, now ceased, if our suggested explanation is correct, to be the central mint of the League. Furthermore, as the fall of Chalcis provided the opportunity for the advancement of Carystus and Eretria², so the humiliation of Tanagra meant

¹ *Athens, its History and Coinage*, p. 93.

² See p. 54 above.

the aggrandisement of Thebes, who, in the next years, it seems, opened a mint of her own with coins on which the wine-jar of Theban Dionysus accompanied the shield of Itonian Athena¹.

I. CLEISTHENES

This chapter began with the money of the first Athenian statesman; it must close with the money issued under his great successor, Cleisthenes.

Democracy of a kind now prevailed in the Athenian state; democracy which was far more hostile to the centrifugal tendencies of family and local divisions than to tyranny; democracy whose policy was quite as imperialistic as that of the most adventurous king. Such a government could not tolerate coin-types associated with aristocratic groupings within the state, and a reversion to the money instituted by the despots was inevitable, especially as this plentiful coinage had already attained a certain reputation and popularity all over the shores of the Eastern Mediterranean. Pisistratus had played up to popular sentiment in the selection of his types, and popular sentiment still found a glamour in the virgin City-goddess, for whom Cleisthenes now began a new and splendid temple on the Acropolis.

So Athens under the Cleisthenic Democracy² of 506-490 B.C. continued to issue tetradrachms, drachms, obols, and half-obols similar to her earlier coins, but showing marked artistic development [Pl. v, 10, 11, 12, 15, 16].

To these were added a triobol, with the head of Athena Erganē unhelmeted as a reverse type [Pl. v, 13]; and a trihemibol depicting on the obverse a Janiform head of Athena, and on the reverse a helmeted head of Athena in an incuse square [Pl. v, 14].

It was characteristic of the Athenian popular government to find employment for its poorer citizens and to pay them well; and so, already under Cleisthenes, the mint was obliged to produce abundant small change for salaries and wages, for builders, carpenters, and masons, as well as for "doddering old jurymen of the great triobol clan³."

¹ For this Theban coinage see p. 95 below.

² Cf. *Athens, its History and Coinage*, pp. 94-99.

³ Aristoph. *Knights*, 255. The original day's pay for the jurymen was one obol. Not till the days of Aristophanes and the Peloponnesian War did the high cost of living demand a raising of the wage to a daily triobol.

NOTE. Chapter IV, which has described the basic numismatic problems of Athenian coinage in the seventh and sixth centuries, could not give an adequate idea of the tremendous energy and prosperity of many sixth-century Athenians who knew, as well as did any Greeks, the pleasure and benefits of travel. Their maritime voyages had started early in the ninth century B.C. and they never lost their love of the sea, which contributed so greatly to their adventurous inclination. Because of this they soared during the sixth century ahead of most other Greeks, and of this their abundant coinage is the witness. But a city no larger than is Plymouth or Lille today could not produce sufficient first-class engravers to design and produce a coinage worthy of its already high artistic traditions, many of which it owed to the zeal and encouragement of the Pisistratid family. Too many other forms of art drew the cleverer men away from engraving of coin-dies. Nevertheless, for certain great occasions, like Panathenaic festivals, a few master-dies (e.g. Pl. LXIV, 1) were cut. But, apart from those, the most prolific Greek sixth-century coinage—the Athenian—was, on the whole, the most carelessly made. After 550 B.C. few coin-dies of merit were made and Athenian money assumed a complicated guise, especially as the impetuous drive of commercial success caused money to be more and more in demand. Blacksmiths and their apprentices were called upon to cut dies. Plumbers and their mates took a hand at the difficult art of die-sinking and minting. The results were some uncouth, some deplorable. The same was to be true of much of the Attic coinage for two more centuries. Every now and again some loud protests must have caused the making of a few fine dies; but the general run of Athenian tetradrachms was of good weight, good silver, and poor, ugly workmanship. Yet these coins won the widest acceptance, by reason of their rich silver content and of their distinctive and individual appearance. A few remarks must be made about the fat amphora coins (p. 43), which I still hold to be the first Athenian coins, made in the late seventh century B.C. An urge is still sometimes apparent to assign this money to the island of Andros because such an attribution occurs in Babelon's *Traité*, (1907), and Head's *Historia Nummorum*, (1911). Yet the source to which those scholars owed their suggestion is suspect. Mr. Demetrius Paschalis, a patriotic citizen of Andros, feeling it wrong that an island of such size should be coinless before the fourth century B.C., decided in 1893 that these—hitherto unattributed—coins be given to his island (J.I.A.N., 1893, p. 299 ff.). Because fourth-century coppers of Andros had as types the head of Dionysos and a wine-cup, a wine-amphora was to be taken as an earlier type-equivalent. This arbitrary attribution was unfortunately reinforced by the handiwork of a celebrated Athenian forger, who, having read the article by Mr. Paschalis, turned out dies for a coin complete with A N beside the vase! Fortunately the fake did not deceive because the forger put letters of fourth-century shape on what purported to be a seventh-century coin. But the fake left the impression that something supported the pseudo-Andrian ascription. In my view the coins are Athenian.

CHAPTER V

EAST AND WEST

THE two foregoing chapters have been devoted to the coinages of a few little states of Greece Proper surrounding, or not far removed from, the Saronic gulf. Neither the political nor the numismatic history of these states is to be despised because the area of each was but a few square miles. Politically they developed and experimented in all the forms of government which have since controlled civilisation. And coinage, which was first invented in Asia Minor, won in Greece its true civic character as the monopoly and chief asset of the state and the distinguishing mark of its independence.

It is now, however, time to take a wider view of the history of coined money; to note the development of the royal Lydian coinage and its successor, the imperial coinage of the Persian Empire; then to glance at the issues of the states of the north Aegean coast; and last to pass across the Balkans and the "Ionian Sea" to a brief review of the money employed in the sixth century B.C. by the western Greeks of Sicily and Italy.

A. THE ROYAL LYDIAN COINAGE

Croesus about 564 B.C. succeeded to the Lydian throne of his father Alyattes, who had coined electrum on the Lydo-Milesian standard with the blazon of the foreparts of two lions facing one another. The son, making an alteration in the royal coat-of-arms, replaced one of the half-lions by the forepart of a bull, and at first the two *protomes* were back to back [Pl. VI, 1].

On the second and third issues, however, the lion and bull *protomes* face one another, the former to left, the latter to right; and the reverses consist of two incuse squares of different sizes side by side. The bean-like shape of these coins necessitated a careful adjustment of these punch-dies [Pl. VI, 2, 3, 4].

Three issues altogether represent the stages by which this celebrated Lydian king, the prototype of all plutocrats, reformed the currency of Lydia, did away with the use of electrum money, and became the first bimetalist.

His first issue [Pl. VI, 1] is in standard exactly like those of his ancestors and those of the Ionian cities. But the variable density of electrum, the uneven proportion of gold and silver of which it was found to be composed, made it somewhat unsatisfactory. So Croesus struck a gold piece about $\frac{3}{4}$ the weight of the old electrum stater¹; and the new coin, since electrum was estimated at about $\frac{3}{4}$ the value of gold, had the same purchasing power as the old.

Then it was that the king went on to his third issue [Pl. VI, 2], beginning with silver coins of 10.72 g. of the same weight as his new gold staters of 10.72 g. Silver was to circulate freely in Lydia as it was doing in Greece and the Islands. But now a difficulty arose.

The ratio of gold to silver was at that time as 1 to $13\frac{1}{3}$, and it was awkward that you should have to pay thirteen pieces and one third of a piece of silver as the equivalent of one golden piece of 10.72 g. weight. But the royal economist found a way out by altering the standard of his gold. The "second issue" gold coin of 10.72 g. was abolished and in its place came a new and lighter gold stater of 8.04 g.², just $\frac{3}{4}$ of its predecessor [Pl. VI, 4]. Now the three chief coins of Lydia were the following:

Light gold stater of 8.04;

and silver of 10.72 g. of which 10 weigh }
and silver of 5.36 g. " " 20 " } 107.2;

but $107.2 \div 13\frac{1}{3}$ (ratio gold : silver being $13\frac{1}{3} : 1$) = 8.04.

\therefore 10 silver of 10.72 each }
and 20 silver of 5.36 each } = 1 gold coin of 8.04.

Perfect bimetallism was established, and you gave in Sardis ten silver double-shekels of 10.72 g., or 20 silver shekels of 5.36 g., in exchange for a gold stater of 8.04 g.³.

"The Lydians", says Herodotus⁴, "were the first of all men known to us who struck and made use of coins of gold and of silver." This statement, referring as it probably does to the coinage of Croesus, proves correct, but has nothing to do with the much older tradition preserved by Xenophanes of Colophon who stated that the Lydians were the inventors of coined money;

¹ And with it thirds, sixths, and twelfths in gold.

² Again with thirds, sixths, and twelfths in gold.

³ Cf. for further details *Athens, its History and Coinage*, p. 124 and especially O Viedebandt, *Antike Gewichtsnormen*, etc., p. 42 ff.

⁴ i, 94.

for the Colophonian sage seems to have referred rather to the first electrum, which about 680 B.C. was struck with the device of a Lydian king¹.

The gold staters of King Croesus² played in their day an important part in history. There are records in ancient literature telling how he employed them to enrich his friends like the Athenian Alcmaeon³ and to win the goodwill of the citizens of Delphi for whose god he had so great a regard⁴. The silver shekels of the Lydian king are fairly plentiful at the present time and even the lighter gold staters are not uncommon. The latest find of them comes from the city of Sardis itself, where in the circuit of the sixth-century wall the American excavators found in 1922 a hoard of thirty such pieces, buried probably about the time of the fall of Sardis.

B. THE IMPERIAL PERSIAN COINAGE

Before Cyrus the Great captured Sardis and the ill-fated Croesus about 546 B.C. the Persians, like the other people of the Middle East, had felt no need of coined money, contenting themselves with an unstamped metal currency. But contact with the Greeks of Asia Minor and the establishment of Sardis as the seat of a Persian satrapy caused the Persians to continue the Lydian monetary policy and it is probable that Sardis itself was the seat of the first royal Persian mint. The Great King, however, showed a keen economic sense, for, while he adopted the neat bimetallic system of Croesus in which twenty silver pieces had the purchasing power of one gold piece, he did not make the local Lydian standard his own, but, with an eye to the commerce of his whole empire, coined on the ancient Babylonian standard, which was rather heavier than the Lydian.

These⁵, the most celebrated of ancient coins, with the Great King himself as device [Pl. VI, 5, 6, 7], were minted in their millions by all the Achaemenid kings for two centuries and were destined to play a part in history of the widest significance, to

¹ See above, p. 14 f.

² Called *Κροισίοι στατήρες*, Pollux, *Onom.* 3, 87; 9, 84.

³ Hdt. vi, 125. A comic version explaining the enrichment of the Alcmaeonid family by trade with Lydia.

⁴ Hdt. i, 54.

⁵ Cyrus (?) Cambyzes (?) and Darius I, (ca. 540 or) 521-486 B.C. At Sardis and other mints.

Obv. The Great King bearded, half kneeling r. crowned with royal tiara or

promote the downfall of Athens, to corrupt the morals of Sparta, to ruin greedy satraps, to finance Sicilian wars and to serve as the golden bait which lured the famous "Ten Thousand" into the midst of the Persian Empire. In the West the plough of the Sicilian peasant still turns them up from the soil; in the East the bazaars of Kabul and of Peshawar may be searched for worn *sigloi* which still pass from hand to hand.

Dareikos and *siglos* were the names the Greeks gave to these coins; but here an historical point presents itself. The Lydian money of Croesus ceased in 546 B.C.; Darius I came to the throne in 521 B.C., and it is customary to ascribe the beginning of the Persian coinage to that monarch. He may have initiated the gold coins which were named *Darics* after him, but there were Greeks who thought that they were issued before his time¹. It may well be the case that the silver *sigloi* were introduced by Cyrus, or at least by Cambyses. The gap of twenty-five years is not filled by the coinage of any other Asiatic state, and the Persian *sigloi* of the Great King are, even in fabric, the direct successors of Lydian shekels. Darius may have been the first Great King to coin in the central regions of his empire; but it is a preferable conclusion that the satraps of Cyrus began to coin silver, if not gold, "Persian archers" in the west of his dominions not long after the cities of Ionia passed from beneath the Lydian to the Persian yoke².

It was probably the initiation of a royal Persian coinage which stimulated another and lesser oriental potentate to imitate the Great King. The half-Greek Euelthon, king of Cyprian **Salamis**, who seems to have claimed dominion over the whole of Cyprus, began to coin silver about 520 B.C., striking staters, or double-shekels, thirds, and twelfths, on the ancient Babylonian, which, by adoption, had now become the royal Persic standard. His coins and those of his successors for a century bore on their

kidaris and wearing the royal robe or *kandys*; a quiver at his back, a bow in his l. and a spear in his r. hand.

Rev. Oblong incuse having the appearance of the two incuse squares of the royal Lydian money merged into one.

Gold *Daric* 8.42 g. Pl. VI, 5, 6.

Silver *Siglos* 5.60 g. Pl. VI, 7.

On Persian dress see A. S. F. Gow, *J.H.S.* 1928, p. 142 ff.

¹ Harpocration in *schol. ad Aristoph. Eccles.* 602. The story (Hdt. iv, 166) of the silver of Aryandes in Egypt does not preclude an earlier issue of *sigloi* in Sardis.

² *Athens, its History and Coinage*, p. 126.

obverses the Salaminian badge, a ram to left lying down. The first issues of Euelthon were peculiar in that their reverses were perfectly smooth¹. In the process of coining the blanks must have been struck with a flat piece of metal instead of with a punch [Pl. VI, 8].

Until about the middle of the fourth century B.C. the Cypriot Greeks refused, partly from conservatism, partly perhaps from hostility to their Semitic neighbours, to use the "Phoenician" alphabet employed by other Greeks. Instead they persisted in the use of an ancient syllabary which rendered, to take a single example, *Basileus* as *Pa-si-le-wo-se*. The early coins of Salamis bear in syllabic script the cumbrous name *E-u-we-le-to-ne*, which stands for Euelthon. This king's second issue was technically improved by having a reverse type, an Egyptian *ankh* within an incuse square, and within the ring of the *ankh* the syllable *Ku* for *Κυπρίων*, vouching for Euelthon's claim to the whole island [Pl. VI, 9]. His coinage was continued by his successors.

C. THE NORTHERN AEGEAN COAST

The advance of Persia to the Aegean put an end to the free coinage of the Ionian Greeks, who, as they passed beneath the Persian yoke, were forced, it seems, to employ Persian money emanating from the Sardian mint. It is, indeed, probable that their monetary, like their civic liberties, had already been greatly curtailed by Croesus. At any rate from about 544 B.C. onwards the coinage of the mainland cities, Miletus, Ephesus, Phocaea and Teos came for a time to an end.

Large numbers of the Teian² and Phocaeian³ citizens could not endure the Persian dominion and sought new homes elsewhere; and these colonists took to their new homes the moneyer's craft. Hence money of a Graeco-Asiatic character came suddenly into circulation on the coasts of Thrace, of Italy and of Gaul.

Thus the blazon of Teos, a seated griffin [Pl. VI, 10,] was transferred to **Abdera** in Thrace, which produced a coinage far more abundant and attractive than that of the mother-city.

Few Greek coin types are more decorative than these Abderite heraldic griffins [Pl. VI, 11, 12], while on this money there is met with for the first time a regular series of magistrates'

¹ Compare certain Etruscan coins, p. 123 below.

² Hdt. i, 168.

³ Hdt. i, 164.

names and adjunct symbols in the field of the coins, including a locust, a *kylix*, and a calf's head, symbols belonging to the annual eponymous officials of the city, concerning whom more will be said later¹.

Abdera lay near the rich Thracian silver mines which have already been referred to in connection with the exile of Pisistratus. Scarcely had that astute Athenian left the Thracian region, where he had so successfully exploited the mines, to return to his kingdom, when the Teian colonists arrived in Thrace.

Now the Ionians of Teos took with them to Thrace the Ionian-Milesian standard with a stater or unit of about 14.05 g.; and it may be that the abundance of the Thracian silver so reduced its value that they found it needful to increase the weight of their units². That would partly explain the fact that the Abderite pieces scale some 14.58 g., the octadrachms, which were also issued, being double that weight. But the increase is so considerable as to demand some further explanation.

There was, before the colonisation of Abdera, a local Thracian or Paeonian coinage the drachms of which weighed about 4.72 g., the didrachms 9.44 g.; the first being $\frac{1}{10}$, the second $\frac{1}{48}$ of the old Euboic mina³. But the glut of silver in Paeonia and Thasos apparently caused a rise of about 3 per cent. in the weight of these drachms and didrachms also, so that the first increased to 4.86 g., the second to 9.72 g. It seems that the Teians of Abdera endeavoured to raise the Milesian standard in such a way that it would conform naturally to the current local Paeonian (or Thraco-Macedonian) scheme of things⁴.

Abdera's neighbour, the Thracian **Dicaea**, which depicted on its coins an archaic head of Heracles [Pl. VI, 13], struck pieces of various Paeonian denominations⁵. **Maroneia**, another important Greek port in the neighbourhood, produced other

¹ p. 142 f. below.

² Just as the increase in the supply of silver from Laurium had caused Pisistratus to raise the Attic-Euboic standard; see p. 53.

³ See p. 42.

⁴ The local drachm (a) of 4.86 g. divided up as follows:—(b) $\frac{2}{3}$ drachm of 3.64, (c) $\frac{1}{3}$ drachm of 2.43, (d) $\frac{1}{6}$ drachm of 1.62, (e) $\frac{1}{12}$ drachm of 0.81; while it was multiplied to supply denominations such as:—(f) $1\frac{1}{2}$ drachms of 7.29 g., (g) a didrachm of 9.72, (h) a tridrachm of 14.60, (i) a tetradrachm of 19.44, (k) a hexadrachm of 29.16.

Thus the Abderite coins which were heavy Milesian octadrachms and tetradrachms were also Paeonian hexadrachms (h) and tridrachms (k).

⁵ i, g, f, b, d, e of those mentioned above.

units¹ for her coins with the type of a whole or half horse [Pl. VI, 14]. Nevertheless most of the coins of this Paeonian standard were the product of the rich island of Thasos and of a group of Paeonian mainland tribes.

Thasos between about 550 and 512 B.C. issued didrachms and drachms with a naked ithyphallic satyr kneeling and holding in his arms a protesting nymph clad in a long chiton; on the reverse a rough incuse square quartered² [Pl. VI, 15].

Besides the gold, which they do not seem to have coined, from their own mines, the Thasians owned such large concessions in the silver of the Thracian mainland that, according to Herodotus³, their annual revenue thence before the Persian invasion was from 200 to 300 talents.

Closely related to these crude Thasian pieces are the rough coins of those mainland tribes, the Letaioi, Orrheskioi, and Zailioi, which depict, the first of them satyrs [Pl. VI, 16], the others centaurs⁴ carrying off nymphs [Pl. VI, 17].

Abdera was not alone in the issue of hexadrachms, for some of these native tribes, notably the Orrheskioi and their Bisaltian and Edonian neighbours likewise struck these big pieces [Pl. VII, 1, 2, 3]. On an Edonian coin of this type, issued probably before 500 B.C., a royal title appears for the first time. On the obverse is a male figure driving two oxen; on the reverse the inscription in rather clumsy letters ΓΕΤΑ ΒΑΣΙΛΕΩΣ ΗΔΩΝΑΝ [Pl. VII, 3].

On the northern littoral of the Aegean the Paeonian standard did not, however, hold undisputed sway in the markets, for it had a rival in the Euboic-Attic standard which prevailed among most of the rich cities of the district later known by the name of Chalcidice. At least nine of these cities opened mints before the close of the sixth century.

Taking them from east to west these states were the following: Acanthus, Terone, Sermyle, Olynthus, Scione, Mende, Potidaea, Dicaea, and Aeneia.

¹ Viz. *h*, *g*, *f*, *c*, and *d* of those mentioned in footnote 4 on page 65.

² Didrachm, at first ca. 9.44 g., rising to ca. 9.72 g.

³ vi, 46.

⁴ Compare φηρσιν δρεσκάουσι of the centaurs in *Iliad*, i, 268; and, as Professor A. B. Cook has pointed out to me, the *Homeric Hymn to Aphrodite*, line 257, calls Νύμφαι . . . δρεσκάου. Thus centaur and nymph is a canting type for the Orrheskioi.

From no source other than the coins is it possible to infer the extent of the wealth, the brilliance in art and culture, of these cities in the latter half of the sixth century, for the present-day conditions of the Chalcidice have not as yet allowed the excavation of more than one classical site.

One of the first to coin money may have been **Potidaea**, the flourishing Corinthian colony, which not long after 550 B.C. issued tetradrachms of Euboïc-Attic weight. The obverse bears Poseidon Hippios to left holding a trident and mounted on a horse, while the reverse incuse is of "St Andrew's Cross" pattern [Pl. VII, 4], like the reverses of the coins of the contemporary Athenian oligarchs. Corinthian influence appears not only in the type of the Corinthian deity but in the fact that the units are divided, not into didrachms and their fractions, but into sixths and twelfths, the sixths being equivalent to Corinthian drachms. Some of these Potidaean sixths, struck before 500 B.C. [Pl. VII, 5], have heads resembling those of Aphrodite on contemporary Corinthian drachms [Pl. IV, 15]. Most of the other Chalcidian cities followed the Potidaean lead and divided their units in the Euboïc-Corinthian, not in the Attic fashion.

Dicaea, not to be confused with the Thracian city of the same name, owed its types to Euboea. Its coins are later than 506 B.C. and reproduced Eretrian devices [Pl. XI, 3 and Pl. XI, 1, 2].

Terone, famed for its wine, began, perhaps about 520 B.C., an issue of tetradrachms and subdivisions with the obverse type of a wine-amphora; while the reverses, influenced perhaps by those of the Abderite pieces, were shallow quartered squares [Pl. VII, 7]. Similar reverses appeared on the contemporary money of lesser cities like Sermyle and Aeneia.

Mende, like Dicaea an Eretrian colony, and more famous even than Terone for its wine, began at about the same period as the latter city, a plentiful coinage. Its coat-of-arms was the ass, often the mount of Dionysus, patron and creator of the famous Mendean vintage praised by various writers¹. The ass upon these coins usually has a crow perched upon his rump and the inscription **MINΔAION** is frequently added. The reverse is of "mill-sail" pattern [Pl. VII, 6]. On the site of this wealthy city there was discovered in 1913 a large hoard of its coins which,

¹ Athenaeus, i, 29 and 31.

with the notices on the Athenian tribute lists¹, is the chief testimony to the opulence of the Mendeans².

The most decorative of all the early coins of the cities of the north Aegean region are those of **Acanthus**; Euboic tetradrachms struck between 530 and 481 B.C.; the type a lion (full of fury) upon the back of a bull in whose flank the lion's teeth are imbedded. The reverse is a plain incuse square of "St George's Cross" pattern [Pl. VII, 8, 9]. The fractions which go with these tetradrachms have the bull alone or simply his forequarters, for an acute sense of design restrained the engraver from crowding too elaborate a picture into the small field of a tetrobol.

A colony of Andros founded about 654 B.C., Acanthus soon surpassed in wealth and prosperity her mother-city. The coin-types, so amazing for the dry strength of their design, so brilliant in their rendering of supple vigour and iron muscle, so judiciously adapted to the coin's round field, have no recondite significance, beyond depicting the city arms. From the site of Acanthus probably there comes a relief, now in the Louvre³, representing a lion attacking a bull. It is a somewhat later version of the coin-type and is simply the state's civic blazon which once may have adorned one of the city's gates. At the time when these coins were struck lions were plentiful in the neighbourhood of Acanthus, for Herodotus has recorded that when the Persian army, on its march to Greece, passed through that region the camels were molested and carried off by lions. "In those parts," he adds, "lions are numerous and wild bulls which have very big horns⁴."

A very summary description is the foregoing of the sixth-century issues of some of the more important Greek colonies in the region later called Chalcidice⁵, and a description which has so far left out of account the coins of the natives of that same region. The most important of the native tribes seem to have been the **Bottiaeans** whose chief township was Olynthus, a place of prehellenic name and possibly a Minoan colony, for the people claimed descent from a mythical Bottōn who was alleged to have come from Crete.

¹ Z. f. N. xxxiv, p. 8.

² The hoard is described by S. P. Noe, *N.N.M.* No. 27.

³ S. Reinach, *Rép. de la Statuaire*, i, p. 112.

⁴ Hdt. vii, 125, 126.

⁵ Concerning the name and the district see the important article by E. Harrison in *Class. Quarterly*, 1912.

The excavations of 1928 to 1931 on the site of Olynthus have revealed extensive traces of prehistoric occupation and of strong "Cycladic" as well as Mycenaean influence. A Mycenaean settlement must certainly have been there, with culture of a sub-Minoan type. Of all Greek coins that are known to us those conjecturally assigned to the Bottiaean of Olynthus, and issued during the sixth century B.C., are perhaps the most "Minoan" in appearance. The splendid cow with her curving horn and head turned back over her shoulder, the little knotty calf beneath her stretching its head up to the teat [Pl. VIII, 1, 2]—the whole design might be the impress of some Minoan sealstone¹. Here is the design repeated as it were in miniature from one of the faience plaques of the sixteenth or fifteenth century B.C. found by Sir Arthur Evans in the palace of Cnossus². While the earlier of these cow-and-calf coins have on their reverses incuse squares, some are decorated with a fine rosette [Pl. VIII, 2] of a type not unfamiliar to Minoan art³.

As far as weight-systems were concerned the people who struck these coins seem to have aimed at making the best of both worlds, Thracian and Hellenic, some of their money being struck on the Paeonian system current in the Strymonian district and in Thasos, some conforming to the Euboic standard of Greek colonies like Potidaea, Dicaea, Terone, and Mende. But the pieces issued on the Euboic system were not tetradrachms, but didrachms.

Since these coins are older in date than the cow-and-calf coins of either Dicaea or of Euboean Carystus [Pl. XI, 3, 4] there can be little doubt that, if borrowing took place, it was the Greeks who borrowed the design from the Macedonian region. The adoption of the type may, however, have been perfectly independent.

On the shores of the Thermaic Gulf the north-western boundary of the Bottiaean region marched with the kingdom of Macedon, and from this boundary there ran in a westerly direction an important trade-route. The Roman Republic at a later date converted this route into a famous military road, the Via Egnatia. But the way itself, climbing up through the rocky

¹ H. Bossert, *All Kreta*², pp. 224, 229.

² Minoan artistic traditions persisted into Greek times; compare, e.g. the plate from Praesus, E. Pfuhl, *Malerei u. Zeichnung d. Griechen*, iii, p. 11.

³ H. Bossert, *All Kreta*², p. 30, fig. 50; p. 222, fig. 313.

ranges of Pindus to drop down again through the Illyrian mountain-passes to the shores of the Adriatic, antedated by centuries the Roman power. The snows might render it impassable in winter and Illyrian brigandage might occasionally make it precarious; none the less it remained the chief land-route from the Hellespont through Macedon to the Adriatic seaboard. Near its eastern end dwelt the Thracian Bryges, close to its western terminus lived the Illyrian Brygoi.

As for the Greeks, their genius for planting colonies in the right places displayed itself in the matter of this trade route also, and so it came about that Corinthians settling at Corcyra established outposts at Dyrrhachium (Epidamnus) and Apollonia, which controlled the western end of the great transmontane track.

The earliest coins of **Corcyra** are rough little pieces, drachms of Corinthian weight, belonging perhaps to the first half of the sixth century B.C., struck from silver obtained not improbably from unidentified silver mines¹ of the mainland opposite the long island. These little coins have a facing cow's head upon the obverse and on the reverse a rude square impression [Pl. VIII, 3]². By the second half of the century more elaborate types began to appear, conceivably inspired by the arrival in Corcyra of Macedonian cow-and-calf coins from across the mountains, for the Corcyreans now struck units with the device of a cow suckling a calf, and half units with the forepart of a cow [Pl. VIII, 4, 5].

The curious pattern appearing on the reverses of these coins does not admit of any satisfactory explanation³. That it is more than a fortuitous design appears probable from the fact that one stellate pattern regularly contains a little square, the other a small lozenge in its centre. Each of the two impressed designs was probably applied to the tetradrachm separately, for some didrachms were punched with the one design, some with the other, though the tetradrachms always had both. The standard was related to the Corinthian, which had a stater of 8.5 g.

¹ Perhaps near Albanian Argyrocastro. The association, once presumed between Corcyra and silver mines at Damastium can no longer be upheld now that J. M. F. May, *The Coinage of Damastion* (Oxford 1939), has demonstrated that this important mining centre lay, not to the west, but to the north of the Macedonian kingdom.

² N.C. 1908, p. 80.

³ It was once fancifully called the "Gardens of Alcinoüs."

divided into three drachms of 2.83 g. The Corcyrean unit weighing about 11.5 g. approximated to four Corinthian drachms totalling 11.33 g., the half unit of 5.6 g. equalled two Corinthian drachms.

D. THE COINAGE OF SICILY

The sea-borne trade which flowed between east and west passed generally by way of Corcyra, and it would have been remarkable indeed if the Corcyrean monetary system had not left its mark on the early coinages of the western Greeks. In actual fact it had no small influence at first in Sicily, later in Etruria. As early as about 550 B.C. **Naxos** in Sicily, a city which was the joint foundation of the Island Naxos and Euboean Chalcis, began the first coinage in the west and used, to start with, the Corcyrean standard. The state seems to have employed an Athenian engraver. Athens, as we have observed, introduced in 566 B.C. in the days of Pisistratus, the first two-sided coins ever made. Naxos was perhaps the second state to do likewise, and its didrachms with the archaic head of Dionysos and a large bunch of grapes on the reverse [Pl. VIII, 9, 10]¹ are very attractive coins. About twenty years later the city of **Himera** on the north coast began to issue money and some of its didrachms appeared in a remarkable hoard, found at Taranto², containing no dateable coins later than 507 B.C. Some of these coins [Pl. VIII, 6, 7] have, beside the city's blazon of a cock, the marks **Λ**, **Β**, **Τ**, and other variants for which no satisfactory explanation is as yet forthcoming³. The reverse is a shallow incuse of eight divisions in a hatched border. The standard of these coins obviously corresponds to the Corcyrean form of the Corinthian drachm, while the thin, spread fabric is modelled upon the spread fabric of the abundant Corinthian coins minted before 540 B.C. [Pl. II, 17, 20]. As for the type, the cock was to the Greeks, as to us, the bird of day, *Hemera*, and as such an appropriate civic device for a city named *Himera*⁴.

Zancle, the mother-city of Himera, seems to have opened about 525 B.C. a mint from which were issued quasi-Italian-Greek coins at first struck on the Corcyrean system.

¹ See H. A. Cahn, *Die Münzen der Sizilischen Stadt Naxos*, 1944.

² *Rev. Num.* 1912, p. 1 ff.

³ Babelon, *Traité*, i, p. 1565, and *N.C.* 1926, o.408.

⁴ A possible alternative is that the cock suggested Himeros, the twin of Eros; cf. Seltman, *Annual of the British School at Athens*, xxvi, p. 93 ff.

This system was, however, not adopted by one western Sicilian state, which began to issue money at a date almost as early as Himera, namely **Selinus**, a city, some of whose coins [Pl. VIII, 8] occurred in the Taranto hoard¹ in company with the Himerean coins just cited. Selinus, though of Megarian extraction, adopted the system of Megara's rivals, Athens and Corinth, the Euboïc-Attic standard, and struck didrachms of about 8.5 g.

The city lay on the banks of a river of the same name, and both city and stream must have derived their name from the *selinon*, or wild celery, in which the region still abounds. The leaf of this plant therefore became the state's natural obverse badge, while the reverse was an incuse square irregularly divided. The reason for the adoption by this, the most westerly of all Greek cities in the island, of the Euboïc-Attic standard is not far to seek. Selinus came into regular commercial contact with the native Sicels and such peoples as the Elymi of Segesta who may have been partly of Minoan, or at least of Aegean, descent. These people had a standard of their own based, not on silver nor on gold, but on copper.

The native copper unit of Sicily was the *litra*, akin to the central Italian *libra*, or pound of copper, and a litra of copper had, possibly for a longish period, been equated with a small piece of uncoined silver weighing no more than 0.86 g. Even during the seventh century B.C., perhaps not long after the time when Ionian electrum dumps had become monetiform [Pl. I, 8], silver dumps in Sicily were apparently being cast on the silver-litra standard. The evidence for this is a pellet of silver [Pl. VIII, 11], found in company with a small silver figurine of "Phoenician" Egyptising type approximately contemporary with the XVth Egyptian Dynasty (750-660 B.C.), and coming from the neighbourhood of Acragas on the south Sicilian coast². Now 18 Sicilian silver litrae would weigh about 15.5 g., 6 such litrae about 5.17 g.; and since the silver dump and figurine, datable perhaps to the seventh century B.C., weigh respectively 15.8 and 5.19 g. they appear to conform roughly to the litra standard. Ancient silver- and goldsmiths, like modern oriental jewellers,

¹ See note 2, p. 71.

² The silver dump and the silver figurine were found together in 1913 near the Ponte di Acragas at Agrigento.

generally made their wares on current standards employed for the precious metals; and so, if the little Egyptian god were made by a western Phoenician craftsman, the latter would be likely to employ the local silver standard. From the numismatic point of view, however, the dump found with the god is more interesting than the god, inasmuch as the dump is the oldest monetiform piece of metal from Sicily.

There was in use in Sicily a silver *litra* of some 0.86 g., the existence of which unit induced the Selinuntines, when they first coined money, to adopt the Attic-Euboic standard because the latter standard fitted in with the Sicel *litra*. In Attica six obols made a drachm, twelve a didrachm; in Sicily five *litrae*, it was found, equalled an Attic drachm, ten a didrachm. Thus the Selinuntine didrachm was a Sicilian ten-*litra*-piece.

Influenced by the all-important consideration of inland trade the greatest of all Sicilian states, **Syracuse**, likewise began its first coinage on the Attic system, which fitted so admirably into the Sicel scheme.

The four-horse chariot which appears upon all the larger coins of this famous city led some scholars to date their first issue as late as the reign of the tyrant Gelon, celebrated for his chariot victories in the great games of Greece¹. There can be no doubt, however, that the coinage of Syracuse began long before she fell under the rule of a tyrant, and while her government was still in the hands of the *Gamoroi*, the landed aristocracy. Horse-breeding, the keeping of racehorses both for riding and for chariots, was in Greece the pride of many an aristocracy which at times took its very name from its "horseyness." The oligarchs of Thessaly and of Chalcis were called *Hippeis*² and *Hippobotai*³, the plays of Aristophanes abound with references to the blood-stock belonging to the gilded youth of Athens, and in Sicily the nobles of Gela⁴ were celebrated for the horseflesh which they owned. It seems, therefore, appropriate that the Syracusan oligarchs should stamp their first coins⁵ with a blazon as characteristic of aristocracy as a racing chariot.

¹ Pausan. vi, 9, 4.

² cf. *C.A.H.* v, p. 34.

³ *Hdt.* v, 77, 2; *Aristot. Pol.* 1289 b.

⁴ *R.E.* vii, 1, 954.

⁵ Syracuse under the *Gamoroi* ca. 530-485 B.C.

(a) *Obv.* **ΣΥΡΑΧΟΣΙΩΝ** Four-horse chariot to r.; the driver holds reins in both hands; first and third horses shown, the second and fourth indicated by

These coins fall into three distinct groups, of which the first [Pl. VIII, 13] is characterised by an incuse-square reverse, which resembles the squares appearing on some of the early coins of the Greek cities in the Thraco-Macedonian area [Pl. VII, 8, 9]. In the second group this incuse square has in its centre a small circular depression, within which is an archaic female head [Pl. VIII, 14]. The reverse type might, however, equally well be described as a circular depression surrounded by four incomplete squares, and as such it seems to have suggested the development apparent in the third group. For the four incomplete squares there are now substituted four dolphins, whose dorsal fins seem still to suggest the outer angles of the squares round the head of the goddess [Pl. IX, 1]. The name of the Syracusans is also transferred from obverse to reverse and the archaic Θ in the legend presently gives place to a \mathbf{K} [Pl. IX, 6]; while upon the obverse the empty space left by the removal of the name is filled by a flying Nike, whose introduction is probably to be ascribed to the archaic *horror vacui* rather than to any historical episode.

The head appearing on most of the coins of the great Sicilian city is to be identified as that of the city-goddess of Syracuse, Artemis Ortygia, who was generally called Arethusa. What Pallas Athene was to the Athenian Acropolis, Artemis Arethusa was to Ortygia the citadel of Syracuse. From Pindar¹ onwards classical literature has frequent allusions to the popular tale, according to which Arethusa pursued by the amorous river-god Alpheus

double outlines. *Rev.* Incuse square of "St George's Cross" pattern. Attic tetradrachm 17.05 g. Pl. VIII, 13.

(b) *Obv.* As last (sometimes with only $\Sigma \mathbf{V} \mathbf{R} \mathbf{A}$). *Rev.* As last, but in the centre a small circular depression containing a female head to left. Attic tetradrachm. Pl. VIII, 14.

Obv. $\Sigma \mathbf{V} \mathbf{R} \mathbf{A}$ horseman r. leading a second horse. *Rev.* As last. Attic didrachm.

(c) *Obv.* Four-horse chariot as before, Nike flying above. *Rev.* $\Sigma \mathbf{V} \mathbf{R} \mathbf{A} \Theta \mathbf{O} \mathbf{N}$ (later $\Sigma \mathbf{V} \mathbf{R} \mathbf{A} \mathbf{K} \mathbf{O} \mathbf{E} \mathbf{I} \mathbf{O} \mathbf{N}$) around a female head which is surrounded by four dolphins. Attic tetradrachm. Pl. IX, 1, 6.

Obv. Horseman r. with second horse. *Rev.* As last. Attic didrachm. Pl. IX, 2.

Obv. Horseman r. *Rev.* As last, no dolphins. Attic drachm. Pl. IX, 3.

Obv. Female head r. *Rev.* Chariot wheel. Attic obol, 0.65 g. Pl. IX, 4.

Obv. $\Sigma \mathbf{V} \mathbf{R} \mathbf{A}$, as last. *Rev.* Cuttlefish. Sicilian litra, 0.73 g. Pl. IX, 5.

It should be noted that H. Gaebler has doubted the authenticity of the first coin described above, but his arguments against it are not convincing.

¹ Pindar, *Nem.* i, 1. The various passages are collected and discussed by E. Boehringer, *Die Münzen von Syrakus*, p. 97 ff. Arethusa = "She who waters" ($\alpha \rho \delta \omega \upsilon \sigma \alpha$).

dived into the sea off the land of Elis to reappear as a fresh-water spring in the salt-water harbour of Syracuse. The head of the goddess-nymph of this fresh spring is therefore surrounded by dolphins, creatures of the salt sea.

Almost from the first the Syracusan die-engravers distinguished themselves by an aptness for neat symbolism, which is apparent on the obverses as well as on the reverses of their coins. Thus by the number of horses displayed the denominations of their coins were indicated. The four-drachm piece bears a four-horse chariot, the two-drachm coin a man with two horses, the drachm shows but a single horseman. And the obol, the small Attic unit, is marked with the wheel of the chariot appearing on the large Attic unit, the tetradrachm [Pl. **ix**, 1, 2, 3, 4].

The Syracusans, as already indicated, probably coined on the Attic standard because it happened to fit in with the local Sicilian litra-standard, and therefore litrae, as well as obols, were coined. Two small coins so similar in weight as the obol and litra would, however, have been confused in the markets had they not been differentiated in type, and for this reason the reverse of the litra [Pl. **ix**, 5] was marked with a cuttlefish. Later on we find that in Sicily the more popular litra tended to oust the obol and Attic tetradrachms began to be regarded as twenty-litra pieces, Attic decadrachms as fifty-litra pieces or *pentekontalitra*.

Before 500 B.C. two cities, not far distant from Syracuse, began a coinage on the Syracusan model. **Leontini** was intimately associated with her neighbour, and her earliest tetradrachms have on the obverse a chariot of Syracusan type. One such chariot-die was actually used by the mints of both cities, lent, probably, in time of stress by Leontini to her more powerful neighbour¹. The reverses of Leontini have a lion's head surrounded by corn-grains [Pl. **ix**, 7]. **Gela**, which lay midway between Syracuse and Acragas, modelled her money on that of the former city, and her earlier chariot-dies are almost indistinguishable from their prototypes². On the reverse of the Geloan money there figures a strange monster, the river-god Gelas, a great man-headed, bearded bull, his forepart only appearing on most of the coins, swimming in his own stream [Pl. **ix**, 8]. On a few rare tetradrachms [Pl. **ix**, 9] there is a

¹ E. Boehringer, *op. cit.* p. 79.

² *ibid.* p. 79.

horseman brandishing a lance on one side and a cantering river-bull on the other.

Acragas, the second Greek city of Sicily, began the issue of coined money in the last quarter of the sixth century. The types were an eagle and a river crab [Pl. VIII, 12]¹, beside the former the legend **ΑΚΡΑΓΑΝΤΟΣ**. They were didrachms of Attic weight, for it was not until the fifth century that Acragas followed the practice, by then common to most Sicilian cities, of issuing tetradrachms.

E. MAGNA GRAECIA

The coins originated during the seventh and sixth centuries by the various Greek cities and passed in review in the foregoing pages all owed their character ultimately to the earliest coinage of all, the Royal Lydian money.

Even states like Athens and Corinth, which before the middle of the sixth century were striking coins with two types, had begun with uniface staters, the reverses of which were punched with an incuse depression like that of the first Lydian electrum.

When we turn, however, to the earliest coins of the Greek cities of south Italy we are faced by a remarkable phenomenon. Their coins are in design and appearance entirely original. The Italiote Greeks learnt from the Greeks of Asia and Hellas the advantages of stamping a device upon silver currency, but employed a method and monetary technique of a strange invention. A glance at their coins [Pl. X, 1 to 10] will suffice to show that these thin pieces, which weigh no more than the first thick coins of Corinth [Pl. II, 16], are different in character from any other Greek coins. Each piece bears on its reverse the same device as on its obverse, but in *intaglio* instead of in relief. Each obverse device is framed in a circular "cable-border." The types were not, as might at first appear, produced in the manner of *repoussé* work, hammered through from the back, but were struck from two distinct dies as is evident from the fact that details and symbols sometimes lacking on the one side of the coin appear upon the other [Pl. X, 4, 7]. The two dies used to strike such a coin were, however, hinged together or in some way connected for the types always lie in the same relative position ↑↑. Indeed, had the types not corresponded thus perfectly, the thin disks of

¹ The crab is *Telphusa fluviatilis*.

silver would inevitably have broken in the process of being coined.

All the great Greek Italiote cities with two exceptions, Hyele and Cumae, to be considered later, struck coins of this type. All of them began to strike before about 500 B.C. Croton, Sybaris and her dependency Pyxus, Metapontum, Tarentum, Caulonia, Rhegium and her *vis-a-vis* Zancle, even Poseidonia lying some distance from the others, all seem to have struck for shorter or longer periods coins with an outward semblance of uniformity.

A difference so extraordinary as this between South Italian Greek and, apparently, all other Greek coins, calls for some explanation. These pieces are of "a bold and arresting fabric" designed to facilitate the use of other people's imported coined money which was then overstruck into a thin disk which required special strength. It is a "known principle that thin sheets of metal, when traversed by pressure-moulded ridges which are correspondingly indented on the under-surface are remarkably proof against bending or buckling." Thus, "the joint effort of type and border" made these thin coins immensely strong¹. But there was more than this in it, for pressure-moulding has likeness to the *cire-perdue*² technique introduced to the Greeks by certain Samian artists about 550 B.C.³. Here the link with Samos is of the first importance, and when all available considerations are weighed, we must conclude that the creation of this superb coinage could only be the work of an exceptional personality; an individual (a) who from youth had learnt and mastered the technique of engraving, chasing, and working in precious metals; (b) who had delicate and fine personal art-sensibility; (c) who understood certain engineering principles, and was acquainted with the *cire-perdue* process recently introduced from Egypt into Samos; (d) who had a mathematical bent which turned his interest to Greek world finance in his day, and who was fully alive to the international situation. Thus we have to assume the existence of a genius on a level with the eminence of Leonardo da Vinci. And, for the latter half of the sixth century B.C. there is only one name to fit this role: Pythagoras⁴.

¹ C. H. V. Sutherland, *Am. Num. Soc. Museum Notes*, iii (1948) p. 15 ff.

² G. M. A. Richter, *The Sculpture and Sculptors of the Greeks* (1929), p. 104.

³ See Seltman, *Approach to Greek Art*, p. 37; P. Naster, *Rev. Belge de Num.* 1947, p. 5 ff.

⁴ Seltman, *N.C.*, 1940, D. I ff.

That remarkable man, son of Mnesarchus a Samian gem-engraver, himself practiced the art of celature¹, and his philosophy was one of form as opposed to matter. Now, between 548 and 540 B.C. there were struck in Calymna near Samos some thin two-type coins with fixed dies² and these must have been known to Pythagoras. About 535 B.C. the Samian Sage broke with Polycrates, despot of Samos, and migrated with his family to the west, arriving opportunely at Croton which was in a state of economic depression. He came with a great reputation; and his tremendous personality imposed itself almost instantly upon the Crotoniates, to whom he must have appeared as a veritable emissary of the high gods. He was now between 70 and 75, but full of energy and evidently one of the greatest and most gifted men in the history of the world. It is likely he saved the situation in Croton by the creation of a currency adapted from the coins of Calymna, but made on an unfamiliar pattern unsuitable for export, whereby the stability of the Magna Graecian money market was assured. The first pieces were of Croton itself [Pl. x, 1] the dies for which he could have made himself since he was trained to such work. Next perhaps came coins of Caulonia and Metapontum, to be followed about 530 B.C. by Sybaris and Pyxus³. Among other states Poseidonia began to mint about 520 B.C., Tarentum, Rhegium and Zancle about 510 B.C. In several of those cities Pythagorean brotherhoods, religio-political groups, were formed and these looked with reverence and for guidance to their majestic founder at Croton. In the next generation an ex-Pythagorean, Empedocles of Acragas—himself a famous philosopher—wrote of Pythagoras among the Italiotes as follows :—

And there was among them a man of rare knowledge
who had won the utmost wealth of understanding
and was master of all manner of skilled work.

The types appearing on the coins of the Greek-Italiote cities were the following :—

Croton; a large tripod, **ῬΡΟ** or **ῬΡΟΤΟΝ**; sometimes symbols appear in the field [Pl. x, 1]:

Sybaris; a bull looking back, **ΜV** or **ΜVΒΑΡΣΤΕΜ** (= *Συβαρίτες*) [Pl. x, 2]:

¹ *loc. cit.*, p. 7 f.

³ *loc. cit.*, p. 11 f.

² The Pythagorean "theory of number" might have influenced certain types.

Sirinian Pyxus, kindred coins; a bull looking back, **ΜΣΡΣΝΟΜ** (= Σιρῖνος) and **ΓΥΧΟΕΜ** (= Πυξόες) [Pl. x, 3]:

Metapontum; an ear of barley, **ΜΕΤΑ** or **ΜΕΤΑΓΟΝΤΣ** [Pl. x, 4]:

Tarentum; either Apollo kneeling holding a lyre, **ΤΑΡΑΣ** [Pl. x, 5]; or Phalanthus riding on a dolphin, **ΤΑΡΑΣ** [Pl. x, 6]:

Caulonia; Apollo striding to right, a small figure on his left arm¹, a "Kaulos-twigg" in his up-raised left hand, a stag before him, **ΚΑΥΛ** [Pl. x, 7]:

Rhegium; a bull with a human face, **ΡΕCΙΝΟΝ** [Pl. x, 8]:

Zancle; a dolphin in a sickle-shaped harbour, **ΔΑΝΚΛΕ** [Pl. x, 9]:

Poseidonia; Poseidon wielding trident **ΠΟΜΕΣ** (= Ποσει-) [Pl. x, 10].

All the types are surrounded by heavy cable-borders².

The above descriptions apply to the staters issued in these various cities, but most of them also issued similar coins of smaller denominations with similar or slightly modified types.

Cumae, though claiming to be the home of the first Greeks who settled in Italy, seems to have issued but few coins until after the defeat of the Carthaginians in 480 B.C. by Gelon of Syracuse. These may, therefore, be reserved for later discussion.

There remains for consideration the coinage of one more Greek-Italote city, Hyele or Elea, generally known by its Latin name of Velia.

It will be remembered that in 544 B.C. the Persian conquest of Ionia drove the bulk of the inhabitants of two Ionian cities to seek fresh homes in other lands. The migration of the Teians to Abdera has already been considered; their cousins, the people of Phocaea, or some of them at least, sought a home more distant than the Thracian coast. The island of Corsica became their objective for the reason that they were already acquainted with the western seas, which they had often traversed on voyages to and from their own colony of **Massalia** in Gaul. Before 544 B.C. these Massaliote Ionians already had a plentiful coinage, for at

¹ For a discussion of the views which have been held on this figure see A. B. Cook, *Zeus*, ii, p. 1041 f.

² Such borders are derived from the frames surrounding devices upon archaic gems, and it is to be noted that Pythagoras himself was the son of a gem-engraver.

Auriol in the Côte d'Azur there turned up in 1867 a large number of archaic coins [Pl. **ix**, 10, 11] typically Ionian in character. But for the fact that they are of silver instead of electrum, they might be mistaken for the products of eastern Greek mints. They are, however, acknowledged to be of western issue, and the bulk were struck in Massalia, while some of their number appear to be imitations of Greek coins made by neighbouring native tribes.

Conspicuous among the types of these Massaliote pieces are certain triobols, with the type of the forepart of a lion to left gnawing a bone [Pl. **ix**, 11], of interest because the lion became the regular device of the Massaliote coins.

This brings us back to the money of Hyele.

The Phocaean exiles, unable to establish themselves in Corsica on account of Etruscan interference, migrated to southern Italy, where they founded a city soon to become famous as the home of the Eleatic school of philosophers¹. In **Velia**, to give the place its Roman name, they coined money in type identical with some of the Massaliote pieces, but of double the weight; drachms with the forepart of a lion to right gnawing a bone [Pl. **ix**, 12]. This Asiatic device became in Velia, as it did in Massalia, the blazon of the city. But presently the lion of Massalia and of Velia was to degenerate into an ungainly and conventional beast [Pl. **xlV**, 17]. The Greek of Macedon and Asia Minor, who might meet a lion any day in the open country, continued down to the end of the Classical period to engrave upon his coin-dies lions both decorative and realistic: not so the Greek of Italy and Gaul, who knew the creature only at second hand.

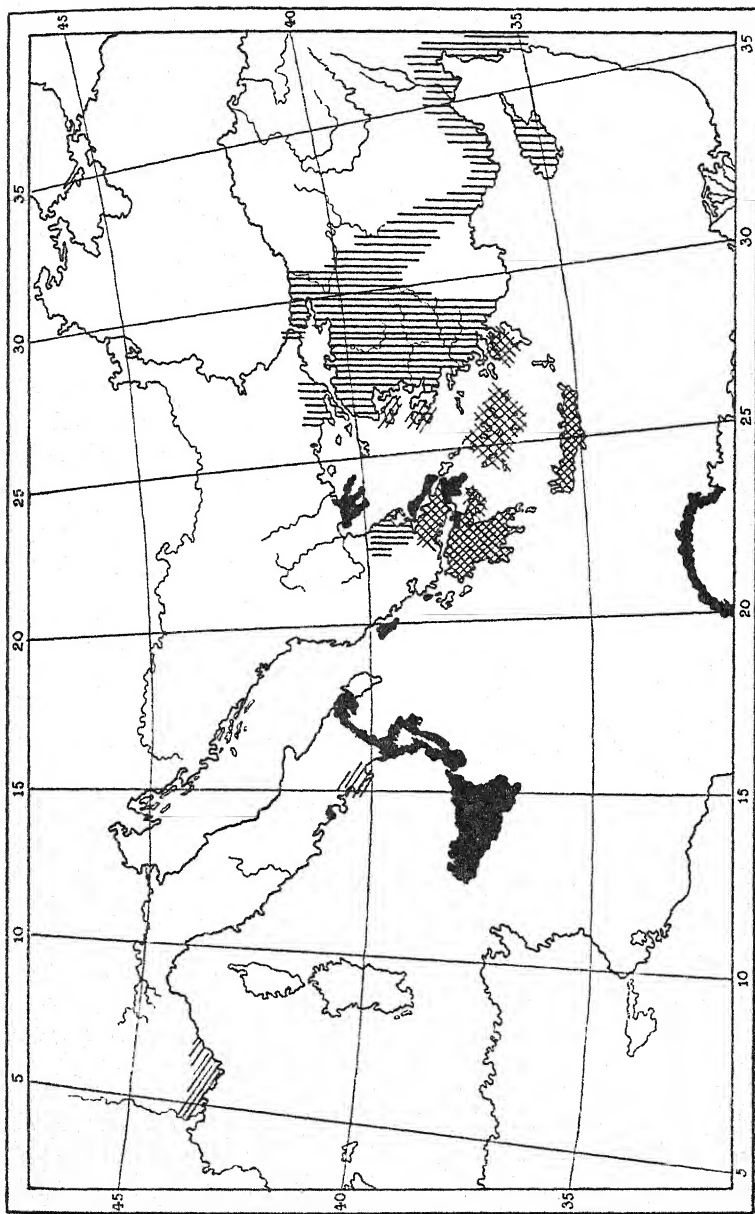
F. CYRENE

About the time when the most westerly of Greek cities was beginning to issue coins the most southerly also began to use coined money of its own. This was an outpost of Greek commerce less distant from Hellas than Massalia, but almost as isolated, Cyrene on the north African coast, a city which must have been in constant touch with Egypt.

In 664 B.C., Psamtek I, who had thrown off the Assyrian yoke and had become Pharaoh of all Egypt with the help of Greek troops, built the fortress of Defenneh (or Daphnae)² and

¹ This school was out of sympathy with the Pythagoreans.

² Hdt. ii, 30, 2.



■ Attic-Euboic (including the Corycean and Italiote standards derived therefrom)
 ||| Persian
 ||| Phrygian
 ▨ Phrygian
 ▤ Chian

Map A. Approximate distribution of ancient coin-standards about 500 B.C.

Egypt was thrown open to Greek commerce. The Milesian factory at Naucratis was founded not long after, and other Greeks from Asia joined the Milesians, whose electrum coins must have circulated there. But only one state of Greece proper secured the privilege of a factory at Naucratis—Aegina. It is possible that this footing in Egypt was won by the Aeginetans in the life-time of Pheidon's successor; and indeed not a few early "turtles" have been unearthed in the Delta.

Yet it was not until about the year 560 B.C. that **Cyrene** was stimulated by the proximity of other money-using Greeks at Naucratis to inaugurate a coinage of her own. Founded from Thera about 630 B.C. under the leadership of Battos I¹ this African colony soon attained to great commercial eminence on account of the monopoly it possessed of the silphium plant, from which were made drugs and seasonings greatly in demand throughout the civilised world of that day. Silphium, the world-famed export of Cyrenaica, became the State's coat-of-arms, and as such figured upon its tetradrachms, didrachms, and drachms [Pl. **IX**, 13, 14]. Variations of the type exist such as silphium seeds, a three-branched silphium stalk, and a palmate silphium leaf. The facts that the earliest type of Cyrenaic incuse seems to be modelled on Rhodian prototypes [compare Pl. **IX**, 13 with Pl. **III**, 7 of Camirus], and that the standard is the old Euboic one already adopted for coinage, as has been shown, by Ionian Samos, by Athens, and by the Corinthians, indicate that Samian, Rhodian, Corinthian, and Athenian influences seem to have been more potent in Cyrenaic commerce than the influence of her Dorian relatives of Thera and Peloponnesus.

It has now been possible to record the spread of coinage from Babylon to Marseilles, and by about 510 B.C. most Hellenic cities of importance are seen to have adopted the custom of using coined money. Henceforward Greek coinage serves firstly the purpose of increasing our historical knowledge, secondly the purpose of a commentary on Greek art. The art, however, proclaims its own excellence, and therefore in the subsequent chapters stress will chiefly be laid on the important addition which accrues to our knowledge of history from a careful study of the money of the kingdoms and city states of ancient Greece.

¹ G. Busolt, *Griech. Geschichte*², i, p. 482.

CHAPTER VI

COINAGE DURING THE PERSIAN WARS

THE Persian Empire, embracing more territory than any empire that the world had known, spread in the year 512 B.C. into Europe, when Darius I induced the king of Macedon to become his vassal and annexed the whole of Thrace, carrying large silver coins of the native tribes off to Mesopotamia where they [Pl. VII, 3] have been discovered¹. Thirty-three years later the Greeks drove the Persians and their Asiatic subjects out of Europe and secured for the Greeks of Asia a freedom of which they were destined to be deprived in less than three-quarters of a century. Of the coinages issued during these thirty-three years, perhaps the most interesting of all Greek historical periods, some account is now due.

The Ionian Revolt, which was the main direct cause that led to an armed conflict between Europe and Asia, seems to have called forth a coinage of attractive type. But, before describing the beautiful electrum coinage [Pl. XII, 1 to 8] of the Ionian rebels², it will be well to examine first the issues of certain other states, whose money can be definitely assigned to the years between 510 and 499 B.C.

A. EUBOEAE

Eretria in Euboea was one of the two cities of Greece—Athens was the other—that sent active help to the Ionians, when in 499 B.C. they tried and failed to throw off the Persian yoke. Now the calamity of Chalcis in 507 B.C. had been, as already indicated, the opportunity of Eretria. Only when Chalcis became the subject of Athens and stopped the issue of her “eagles” [Pl. IV, 16, 17] did the real activity of the Eretrian mint begin.

A cow with her head turned back, scratching her nose with her hind-hoof, a bird generally perched on her back, and the letter A below—this is the obverse type of Eretrian tetra-

¹ *B.M.C. Macedon*, p. 144; *H.N.* p. 201.

² J. N. Svoronos, in *J.I.A.N.* 1919, p. 211 ff., expounds a theory, difficult of acceptance, according to which these electrum coins were issued in Thrace.

drachms [Pl. **xi**, 1, 2], didrachms, drachms, and diobols, while obol and half-obol depict a cow's head. On all reverses in an incuse square there appears a large cuttlefish.

A few of these coins, the most archaic in appearance, are possibly to be placed shortly before 507 B.C., but the widespread pieces [Pl. **xi**, 1] cannot be far removed in point of time from the widespread coins of the last years of Hippias, of the Isagorean interlude and of the Chalcidic-Boeotian alliance¹. And just as at Athens, so at Eretria [Pl. **xi**, 2] the spread fabric gave place before 500 B.C. to a thicker fabric.

Contemporary with this Eretrian money, and copied from it, is the coinage of another Euboean city, **Carystus**; for the early Carystian tetradrachms and didrachms have a cow like the Eretrian. In the next issue, however [Pl. **xi**, 4], Carystus added a calf to the cow. Cows and bulls were, of course, appropriate to Euboea, "the land of fine cattle"; but, apart from this, there seems to have been a fairly widespread tendency to employ cows and bulls as coin-types, an echo perhaps of the days, not so very long distant, when payments were most frequently made in cattle.

On these Euboean coins the reverse was reserved for the actual civic coat-of-arms, the cock of Carystus, the cuttlefish of Eretria. The former has been reasonably regarded as a "canting type," since the cock may be intended for (*Kéryx* or *Karyx*) the herald of day, appropriate to Carystus; the latter, while viewed by every good Eretrian with the regard which a Greek normally seems to have felt towards his civic badge, was on one occasion used as a reproach. It was in the council of war held before the battle of Salamis that an Eretrian, who tried to talk down Themistocles, was crushed by the latter's rejoinder, "What argument can you people make about war, who like the cuttlefish have only a knife in the place where your heart should be?"²

It must have been shortly after the introduction of these coins that the northern Eretrian colony **Dicaea** in Chalcidice proceeded to an issue of coins copied from those of the mother-country [Pl. **xi**, 3], but differentiated by their inscription **ΔΙΚ**.

¹ See pp. 52, 57.

² Plut. *Themist.* xi ... οἱ καθάπερ αἱ τευθίδες μάχαιραν μὲν ἔχετε, καρδίαν δὲ οὐκ ἔχετε. By the *μάχαιρα* is meant the knife-shaped shell which these molluscs have beneath their skin. Plutarch must be quoting an early source for this story, for he himself can hardly have known that the cuttlefish was the fifth-century badge of the Eretrians, nor have seen the full point of the remark which he quotes.

B. THE CHERSONESE

The money issued in Athens after the reforms of Cleisthenes has already been noted in a previous chapter, but no reference has yet been made to certain coins, struck apparently by Athenians in the **Thracian Chersonese**, which may now be considered. It will however be needful to go back a few decades in order to see how an Athenian outpost came to be established upon the shores of the Hellespont.

In the year 559 B.C., when Pisistratus was firmly established in Athens, Miltiades, son of Cypselus, winner of an Olympic victory with the four-horse chariot, left his home at the invitation of certain barbarous strangers from the Chersonese, who had come to Hellas in search of a ruler¹. With him he took a body of Athenians as colonists, and, building a wall across the neck of the Chersonese to keep off marauding Thracian tribes, he ruled with the firmness of a tyrant over the native Dolonci, and with the privileges of a founder over the Greeks in the colony. With him he naturally took to the new colony the traditions of the Athenian aristocracy; and on the first coins that he issued in the new country a record of his Olympic exploit and the oligarchic mint-tradition are both apparent².

There survives a tetradrachm having upon the obverse a four-horse chariot facing, the circle of a shield around it, while its reverse consists of a square incuse in "St Andrew's Cross" pattern [Pl. XI, 5]. To this belongs the third of a tetradrachm showing a horseman, with a second horse, facing on a raised shield [Pl. XI, 6]; also certain sixths with a horseman facing or to right³ on a raised shield [Pl. XI, 7].

In fabric these coins of the elder Miltiades are identical with those of contemporary Athenian oligarchic issue, even the incuse square being of the same character; but the chief denomination was an Attic tetradrachm instead of a didrachm. The linear circle, indicative of a shield, encloses the design of this piece; and on the smaller coins the shield is actually represented in relief with the design upon it.

Stesagoras, son of Miltiades' half-brother Cimon, succeeded about 523 B.C. to the headship of the Chersonese, and once again

¹ Hdt. vi, 35, 36.

² *Athens, its History and Coinage*, p. 136.

³ A horseman beyond doubt as the specimen [Pl. XI, 7] proves, and not as has been claimed (*Philol. Wochenschr.* Feb. 1925, col. 225) a Pegasus.

the fabric employed at about that time in the Athenian mint is used likewise for the money of the north-eastern colony, the coins being struck upon widespread flans, like those employed for the pieces of Hippias, Isagoras, and Chalcis [Pl. iv, 6, ix, 12; Pl. v, 8]. The denominations are an Attic tetradrachm and its third [Pl. xi, 9, 8], the latter equivalent in weight to a Persian *siglos*. Upon the tetradrachm appears a racing-chariot¹ like the one engraved on the anvil-die of the first Miltiades—a second reference to the family's Olympic victories.

The smaller silver piece repeats the facing horseman type of the preceding reign, but the draughtsmanship is more successful.

Stesagoras met his end, after a short reign, at the hands of an assassin, and Hippias sent out as successor Stesagoras' younger brother Miltiades, who had up till that time lived in Athens. Thus about 515 B.C., in the year before the murder of Hipparchus, the second Miltiades became tyrant of the Chersonese.

Miltiades, on taking over his new dominions, seems at first to have continued the coin-types of his uncle and to have issued principally small silver pieces [Pl. xi, 10], which would pass as equivalent to four Attic obols or to half a Persian *siglos*. In 512 B.C. there took place the first Persian invasion of Thrace, whereby Hippias lost his concessions in the Pangaeian silver mines. Miltiades found himself obliged, like other Greek tyrants, to submit to the Persian king², and his coinage thus conformed to the Persian rather than to the Attic system; for at this period he seems to have coined no Attic tetradrachms.

In 499 B.C. there came the great Ionian Revolt against Persia, in which Miletus was the principal mover, while from the mainland of Greece Athens alone sent help to the Ionians in the east. Miltiades was an Athenian citizen and no friend of Persia, as Herodotus is at pains to show³, and he now threw off his allegiance to the Great King and issued a coinage which by its types proclaimed to the world his sympathies with the whole Ionian cause.

The chief city of Chersonese, Cardia, owed her first foundation to Miletus in the seventh century, at the time when that great

¹ The proposals of H. Gaebler (in *Z.f.N.* xxxv, 1925, p. 196), who suggests that the charioteer is a statue of Hera and wishes to assign these coins to Chalcis in Euboea, rather than to the Chersonese, are unconvincing. A cult-image on a sixth-century coin would be very unusual. The coins of Chalcis with eagle-type have already been described.

² Hdt. iv, 137.

³ *loc. cit.*

city controlled the corn-route from the Euxine. Thus it was that on the obverse of Miltiades' new money there now appeared the lion of Miletus—a fine heraldic beast with lashing tail, head reverted, and bared teeth [Pl. **XI**, 11, 12]. This lion had been, from the days of Thrasybulus, the Milesian civic badge, and continued as such at least until the age of Hadrian. On the reverse Miltiades placed the head of Athena Promachos, the patron goddess of Athens, which was sending help to Miletus, a head copied from Cleisthenic tetradrachms [Pl. **V**, 11] current in Athens at that time; while on one die [Pl. **XI**, 12] the letters **XEP** appear in front of Athena's head. Once more close relations were established with Athens and so these coins are struck with the weight of Attic tetradrachms, not, like the coins with the horseman, on a Persic system. The fractions [Pl. **XI**, 13] destined for the Pontic trade were sixths and twelfths, and depicted only the forepart of the Milesian lion.

It is clear that the people of Chersonese took part in the Ionian Revolt from the fact that the Ionian allies had free access to the Propontis¹, an access only possible with the sanction of the Chersonesian Greeks. Further, when the revolt was crushed by the Persians, they in revenge drove Miltiades from his dominion.

C. THE IONIANS

The headquarters of the rebel Ionians, inspired, according to Herodotus, to revolt by Histiaeus and led by Aristagoras, were at Miletus. Now in the old days, before she had surrendered her liberty to the king of Lydia and before she fell under the blight of an economic crisis², Miletus had, as already indicated, been the principal Greek mint issuing heavy electrum staters, greatly varied in type, of Lydo-Milesian weight (14.16 g.), and their subdivisions. The Lydian and Persian monarchies had substituted gold and silver for electrum; but the Ionian rebels now gave their coins a kind of patriotic character by reverting to the methods of coining prevalent in the days of their former freedom³.

¹ Hdt. v, 103.

² C.A.H. iv, p. 218.

³ The credit of having identified the coinage of the Ionian Revolt must be shared by two numismatists, P. Gardner and R. Jameson, who, unknown to one another, came simultaneously to the same conclusion. The latter published his results in *Rev. Num.* 1911, p. 60 ff., with Plates I, II, the former in *J.H.S.* 1911, republishing them with modifications in his *History of Ancient Coinage*, B.C. 700–300. See also Agnes Baldwin Brett, *The Electrum Coinage of Iamp-sakos*, 1914, p. 24 ff.

A variety of types appeared on a series of electrum staters and fractions which were struck, not on any normally current standard, but on the old Lydo-Milesian; types, metal, and weight-system all harking back to those of the good old days of autonomy. Whether the coins were minted at Miletus, the centre of revolt, or at Chios, the naval headquarters of the fleet, is immaterial, since it may be presumed that the Milesian state co-operated with a board of officials as the issuing authority for the Ionian League. The surviving types in electrum include an eagle, the forepart of a bull looking back, a sphinx, a galloping horse, a sow, a cock and palmette, the head of Athena in an Attic helmet¹ with a wing attached to it, the forepart of a winged horse, and the protome of a winged boar [Pl. XII, 1 to 7]. There were also some electrum sixths with a bull's head and certain silver pieces of the same fabric, type, and standard with winged boars and horses, or with a cantering horseman [Pl. XII, 9]. The types upon this series of coins are probably to be explained as the devices of responsible magistrates² whose number would presumably be above the normal seeing that they represented the League rather than a single state. To imagine that these coins were struck in a variety of mints implies that the League Council found time, amid the serious affairs of war, to send instructions to members as distant as Lampsacus concerning the types, weights, and metals of coins that were to be struck. It is much more probable that the rebel states pooled their financial resources and placed them under the control of a board of monetary officials, who caused their numerous badges to be stamped on the coins. This would explain the appearance of so many blazons in so short a period.

The sphinx and the foreparts of a winged horse and of a winged boar seem to be the badges of cities, rather than of individuals, for they are the coats-of-arms of Chios, Lampsacus, and Clazomenae respectively; but they may have been placed on the League coinage by officials of those three cities, who preferred their civic to their personal charges. Of the other types none can be certainly associated with an Ionian state. Not the

¹ Can this type have been complimentary to Athens after the arrival of the twenty Athenian ships which helped the Ionians?

² This idea had already occurred to B. V. Head, *B.M.C. Ionia*, p. xxiv, though he failed to identify them as Ionian League coins. Compare the early Milesian money, p. 25 f.

least interesting is a certain stater depicting two rampant lions [Pl. XII, 8], a representation familiar on a variety of early monuments, Cretan, Mycenaean, and Phrygian¹.

D. THESSALY

Ionia was subdued in 493 B.C. and by the autumn of 491 Mardonius had brought Thrace and Macedon back under Persian control. But in that year, it seems, Persian influence extended yet farther into Europe; for from its earliest coins we learn that northern Thessaly also fell under the influence of the Great King.

Larisa, the largest and most wealthy Thessalian city, was governed at this period by the house of the Aleuadae, the senior member of which apparently claimed the position of *Tagos*, or military chief, of all Thessaly; and the Aleuadae, like their northern neighbour Alexander king of the Macedonians, took the Persian side. Coincident with their medising was the earliest issue of coins from Larisa, and these coins were very naturally struck on the Persic standard².

The types are of Thessalian national rather than of Larisaeen civic character³. On the hemidrachm appears the head of Jason, the Thessalian national hero; on the drachm, the sandal he lost when crossing the river Anaurus on his way to Iolcus from Mount Pelion to claim the kingdom from his uncle Pelias [Pl. XII, II, 10]. Since this legend had nothing to do with Larisa it seems that the Aleuad *Tagos* ruled most of Thessaly. Moreover the double-axe upon some of the coins, as on those of later Thessalian rulers, is best explained as the mark of overlordship⁴, appropriate at a time when the Aleuadae were attempting to establish for themselves a hereditary *Tageia*⁵.

This Larisaeen coinage is to be brought into direct relation with the advance of Persia into Europe overland. The advance of the Persian fleet over the sea put an end about the same time to the money of a flourishing group of Cycladic islands, Naxos, Paros, Tenos, and Delos, which must have been coining for about half a century previously.

¹ cf. *C.A.H.* vol. of *Plates*, i, pp. 194 b, 160 a, 184 b.

² F. Hermann in *Z.f.N.* 1924, p. 3 ff.

³ Obols also exist of this series with a female head and a sandal, trihemibols with a horseman and a seated figure, and obols having a horse on the obverse and a nymph either carrying a hydria or playing ball. F. Hermann, *loc. cit.* p. 9 f., Pl. I, 11-17.

⁴ *loc. cit.* pp. 8, 64 ff.

⁵ *C.A.H.* iii, p. 603.

E. THE ISLANDS

The island coins of this group are differentiated from other Aegean coins by a special type of reverse punch, square and marked by cross-lines arranged in "St George's Cross" pattern¹. For blazon Delos had a lyre, Naxos a kantharos, Tenos a bunch of grapes and Paros a goat [Pl. XII, 12, 13, 14]. Of these Delos, under Samian and Athenian influence, naturally employed the Euboïc standard; the other three the Pheidonian. But difference of standard did not lead to any difference in mint-technique within the group.

The Parian coins call for some comment, because it has been usual to ascribe to that island the coins with a goat kneeling over a dolphin, which, for reasons already given, have been assigned with the other dolphin coins to Megara. What then remains for Paros?

The drachms of Paros figured in a sixth-century epigram of the great Simonides², which he wrote for the base of a statue of Artemis:

Of Artemis this is the statue; two hundred, yes, that was the price
It cost me in Parian drachmas, each bearing a goat as device.

This typically mercenary epigram, which seems to contain the oldest literary reference to the actual type of a Greek coin, indicates that the Parian coins had goat-types; and they are to be identified with certain island coins, of Pheidonian weight, some of which have been found on the island of Syra lying some twenty-two miles to the north-west of Paros. On some the goat is kneeling [Pl. XII, 14], on others standing, while the reverses are characterised by the same type of incuse as that appearing upon the reverses of the sixth-century coins of Delos, Naxos, and Tenos. These islands, therefore, constitute a definite numismatic group, the coinage of which came to an end about 490 B.C., when the four islands passed under Persian rule. Naxos was sacked by the Mede³ in 490 B.C., and her ships forced to sail ten years later in company with those of Tenos⁴ against the Greeks. That Paros

¹ For further details see Seltman, "Aegean Mints", N.C. 1926, p. 146 f.

² *Anthol. Lyrica*, ed. Diehl ii, fasc. i, p. 105, no. 114:

Ἀρτέμιδος τὸδ' ἄγαλμα· δηκόσαι γὰρ ὁ μισθὸς
δραχμαὶ ταὶ Πάριαι, τῶν ἐπίσημα τράγος.

³ Hdt. vi, 96.

⁴ Hdt. viii, 46 and 82. Both groups of islanders seized the first opportunity available to desert the Persian side.

too had medised is proved by the punitive expedition led against it in 489 B.C. by Miltiades¹, and Delos enjoyed the favour of the Persian Datis when he sailed to attack Eretria and Athens².

The same Persian armament, which by annexing these four islands cut short their coinage, put an end likewise to the handsome "cuttlefish" money of Eretria described at the beginning of this chapter. Eretria fell and Athens had to face the Mede at Marathon.

F. ATHENS; MARATHON TO SALAMIS

That Marathon was psychologically the greatest event in Athenian history can hardly be denied. At that battle the Athenians under the leadership of Miltiades learnt, and proved to the rest of Greece, that a superior number of the dreaded Persians could be routed by the mail-clad citizen-levies of a little state. It was therefore natural that a people to whom the symbolism of coinage meant something should commemorate this greatest event by a change in, or rather an addition to, the types of their coins.

Athens, accordingly, after Marathon struck in the autumn of 490 B.C.³ tetradrachms on the obverse of which appeared a helmeted head of Athena to right olive-crowned⁴; and on the reverse an owl, a waning moon, an olive twig, and ΑΘΕ [Pl. XII, 16, 17].

The face of Athena on the first die hardly differs from the face [Pl. XII, 15] on the last die of the pre-Marathonian issue; but the whole head on the newer tetradrachm is slightly smaller. On the earlier Marathonian coins the helmet's crest is still marked with the old-fashioned pattern of chevrons and dots, and the old methods of indicating Athena's hair by series of dots and lines prevail upon these [Pl. XII, 16]. Subsequently, however, the hair was regularly dressed in waves, a mode which had made an occasional appearance even in the time of Pisistratus.

The new dies with types designed to commemorate the Marathonian victory were made rather smaller than their predecessors, and the owl was consequently squeezed into a smaller space; hence it appears more plump and upright, while the olive

¹ Hdt. vi, 133; Ephorus, *F.H.G.* i, 263, frg. 107.

² Hdt. vi, 97.

³ J. A. R. Munro, *C.A.H.* iv, ch. viii, would date Marathon a year earlier.

⁴ The Bowdoin painter (ca. 480 B.C.) copied this head of Athena on certain lekythoi (J. D. Beazley, *Attische Vasenmaler*, p. 140, 40, 41; A. S. Murray, *White Athenian Vases*, Pl. XIV), as Professor Cook has pointed out.

leaves hang down close together filling almost the whole area behind the bird. But the later dies of the group were made larger; thus the owl grew more triangular in shape and the leaves could spread themselves more naturally in the field [Pl. XII, 17, 18].

Marathon was commemorated on the Athenian coinage first by the placing of four or three upright olive leaves upon Athena's helmet, and these remained a part of the design for more than two and a half centuries; secondly by an addition to the reverse of the tetradrachms. The battle was fought when the moon was past the full, for the Spartans arrived in time to view the Persian dead upon the field, and the Spartans, it will be remembered, could not leave Lacedaemon until after full moon¹. Thus it seems an almost irresistible conclusion that the tiny waning moon, now introduced for the first time upon the coins, is also a reference to the date, which impressed the average Athenian mind far more even than Salamis. Salamis was a pan-Hellenic victory: Marathon was the achievement of Athens and of her ally Plataea alone. Finally, while Marathon was probably fought with a moon already into its third quarter, Salamis was certainly fought with a full moon² and could, therefore, not have been the occasion which caused the adoption of a waning moon as part of the Athenian coinage.

The fractional coins consisting of drachms and obols from now on show Athena's helmet with olive leaves upon it, but do not, like the tetradrachms, show a little moon on their reverses.

During part of the decade between Marathon and Salamis the Athenians were not a little disturbed by a lengthy and irritating war with Aegina, and that island state, possessing a powerful fleet, was able to harass Athenian coasts and traders alike. The economic disabilities arising from this type of war were, however, offset by a fortunate find in the Laurian mining district, where a rich vein of silver was struck—so rich that the State found itself in a position to imitate the even more wealthy Greek island state of Seriphos, in which the annual profits of the mines were divided among the citizens³.

¹ For the clearest account of the campaign and the political situation of the time see the article by J. A. R. Munro in *J.H.S.* xix, 1899, p. 185 ff. Another account by F. Maurice, *J.H.S.* lii, 1932, p. 13 ff. For further details concerning this coinage see *Athens, its History and Coinage*, ch. xiv.

² Plut. *de gloria Athen.* 7.

³ Hdt. iii, 57.

For some two or three years, it seems, the Athenians enjoyed an annual dole until wiser counsels prevailed. Plutarch¹, drawing probably on some early writer such as Androtion, records that "whereas the Athenians were wont to divide up among themselves the revenue coming from the silver mines at Laurium, Themistocles alone dared to come before the people with a motion that the division be given up, and that with these moneys triremes be constructed for the war against Aegina."

Plutarch's source, thus, recorded the actual distribution of the money; Herodotus tells the same tale² and adds information concerning the sum that each individual had received as his annual dole. "Fortunately," he writes, "another piece of advice on the part of Themistocles had before this (i.e. before the great Persian invasion) won its way. When the Athenians, having in the treasury much money, which came from the mines of Laurium, were about to share it, coming up one after another for *ten drachms each*; then Themistocles persuaded them to give up this distribution and to build two hundred ships with the money for the war against Aegina."

This happened in the year 483 B.C., and it is obvious that for some three or four years before that date each fortunate citizen of Athens had, instead of paying income-tax, received the bonus of ten drachms once a year.

Now as the Athenian citizens to the number of thirty thousand³ came up "one after another" to get their ten drachms apiece a serious problem confronted the paymaster behind the table. Drachms were comparatively scarce at this period; four-drachm pieces were plentiful, but you cannot pay a man ten drachms down in tetradrachms.

For this occasion, therefore, the mint issued two new denominations, the decadrachm and the didrachm, thus enabling the paymaster to hand over to each payee either a single ten-

¹ Plut. *Themist.* 4, καὶ πρῶτον μὲν τὴν Λαυρεωτικὴν πρὸς οὐδὲν ἀπὸ τῶν ἀργυρείων μετὰ τῶν ἑξ ἑκαστοῦ Ἀθηναίων διανεμέσθαι, μόνος εἰπεῖν ἐτόλμησε παρελθὼν εἰς τὸν δῆμον, ὡς χρὴ τὴν διανομὴν εἰσάσαντας ἐκ τῶν χρημάτων τούτων κατασκευάσασθαι τριῆρεις.

² vii, 144: ἐτέρη τε Θεμιστοκλεῖ γνῶμη ἔμπροσθε ταύτης ἐς καιρὸν ἤριστευσε, ὅτε Ἀθηναίοισι γενομένων χρημάτων μεγάλων ἐν τῷ κοινῷ, τὰ ἐκ τῶν μετὰ τῶν ἀπὸ Λαυρείου, ἐμελλόν λαβεῖσθαι ὀρχηδὸν ἕκαστος δέκα δραχμάς· τότε Θεμιστοκλῆς ἀνέγνωσε Ἀθηναίους τῆς διαίρεσιος ταύτης παυσάμενους νέας ποιεῖσθαι τῶν χρημάτων ποιήσασθαι διηκοσίας.

³ Hdt. v, 97 gives this as a round number at the time of the Ionian Revolt.

drachm piece, or two of the current tetradrachms and one didrachm, or simply five didrachms¹.

On the coins struck specially for this dole [Pl. XIII, 1, 2] the heads of Athena resemble exactly the heads on tetradrachms issued midway between 490 and 480 B.C. [e.g. Pl. XII, 17]. But the reverse of the ten-drachm piece bears a facing owl, spread-winged; of the two-drachm coin a little compact owl framed in a shallow square outside of which hangs one of the leaves of the olive twig.

It has long been recognised that the decadrachms and didrachms are strictly contemporary. They were issued simultaneously on this occasion, and on this occasion alone, for at no other period in subsequent Athenian history do we meet either the one denomination or the other.

Enshrined in the cabinets of a few collections there are still to be found specimens of this, the most conspicuous and important of all historical Athenian coinages, specimens of an issue the need for which is vouched for by Greek historians including Herodotus, who must have met many a man able to tell about "the good old days of the ten-drachm dole." If there has sometimes in the past been a temptation to connect the decadrachms with Salamis, this has merely been founded on a misconception. It was apparently once thought that, because a coin was large, therefore it should be commemorative, and that, because most large round commemorative bits of metal nowadays commemorate battles, therefore large round pieces of Greek silver, if you admit them to be commemorative, should commemorate battles.

Now the types of coins may be influenced, modified, altered completely by historical events, and so *types* were constantly commemorative. The size of Greek coins was dictated by economic factors, a point to which we shall revert in our consideration of Sicilian issues. Their *size* as such therefore hardly ever commemorated events.

If we pause for a moment and attempt to comprehend the economic conditions of the coin-using civilised world in 480 B.C., when the Persian invasion swept into Greece, we find that the following facts emerge: with but few insignificant exceptions all coined money was struck on or adapted to either one of two

¹ *Athens, its History and Coinage*, p. 107.

international or one of two local standards. The international standards were the Persian and the Attic-Euboïc; the local, the Chian and the Pheidonian.

All the Asiatic provinces of the Great King, as well as his vassals in Europe as far west as Thessaly, employed the Persian system; the independent cities of the Chalcidian region, Euboea, Athens, Corinth, Cyrene, Corcyra, the Siceliote Greeks, and nearly all the Greeks of south Italy employed the Attic-Euboïc or some modification thereof. Of the two local systems Chios, Velia and Massalia made use of the one, while the Pheidonian standard was confined at this period to the Peloponnese, some of the Aegean islands, Crete, Phocis, and Boeotia (see Map, p. 81).

In the last-named district **Thebes**, now a more important mint than Tanagra, was probably already issuing at the time of the Persian wars coins on which there was added to the shield-obverse a reverse type representing the amphora of Dionysus [Pl. XIII, 3].

G. PELOPONNESUS

The Peloponnesians at this period transacted most of their business with Aeginetan "turtles," which were, indeed, regarded by later writers as a kind of interstate currency for southern Greece.

"Courage and wisdom," ran the proverb, "are overcome by Turtles," and a Hellenistic commentator¹ is at pains to explain this by stating that "the Turtle was the coin of the Peloponnesians." But, while no Peloponnesian city had yet begun to issue didrachms, small change for local market use was being minted before 480 B.C. by several—notably by Argos, Sicyon, Mantinea, and Heraea.

Argos issued drachms, half-drachms, and obols with the whole, the half [Pl. XIII, 4], or the head of a wolf, the square punch-mark of the reverse being filled with a large A. **Sicyon**, employing similar denominations and a large Σ as its reverse type, placed the badge of a dove on the obverse of its money [Pl. XIII, 5]. **Mantinea**, famed for the legend of Callisto, whom Hera had transformed into a she-bear, selected a she-bear as device; and, like Argos and Sicyon, contented itself with initials for reverse types [Pl. XIII, 13]. **Heraea** must needs have the

¹ Pollux, *Onom.* ix, 74.

veiled head of Hera on the obverse, and on the other side the letters **ΑΡΑ** or **ΑΡ** [Pl. XIII, 6]. So much for the chief local city-coinages of the Peloponnese.

Besides these, however, there had emerged already in the sixth century B.C. two other coinages of a truly remarkable character, the products, apparently, not of civic or dynastic, but of priestly treasuries. Of these the more important was the coinage of Olympia.

With **Olympia** we are accustomed to associate religion and sport, the one in the Altis, the other in stadium and hippodrome. There was, however, a third aspect to every Olympic festival, the great fair which was held in the agora immediately to the south of the Altis; the greatest fair in Greece it must have been, because nowhere else did so many Greeks of different states ever come together. Outside the southern Altis-wall and adjoining the agora lay two *Bouleuteria*, apsidal halls, serving perhaps as the administrative offices of the priestly colleges of Hera and of Zeus. If the more northerly hall belonged to the more northerly temple, that of Hera, then the other hall, the foundations of which are of sixth-century date, would have been the property of the priests of Zeus; and this was the hall which lay nearest to the agora. By about 520 B.C. it was found that imported currency did not suffice for the needs of the great fair and so the priestly college of Zeus, in whose council-hall adjoining the market disputes could be settled and weights and measures tested, began to mint didrachms, drachms, and fractional currency of Pheidonian-Peloponnesian weight stamped with eagle and thunderbolt, the symbols of Zeus himself, and marked with the name of the Elean people, who owned and controlled Olympia and all that appertained thereto.

The eagles¹ on the earliest of these coins [Pl. XIII, 9, 10, 11, 12] need but be compared with the eagles on the coins of Euboean Chalcis [Pl. IV, 17], a city whose mint ceased to function in 506 B.C.², to make it obvious that they are contemporary, and they are probably to be dated as early as 520 B.C.

¹ *Olympia*; the "Zeus-mint" ca. 520-470 B.C.

Obv. Eagle flying, at first without prey, then with serpent or hare.

Rev. **FA** (for *Φαλείων* = "of the Eleans"), thunderbolt, or later Nike in archaic running-flying attitude; the whole in circular incuse depression.

Didrachms, drachms, tribols, obols.

² See p. 54.

At one time it was proposed¹, merely because the coins bear the name of the Elean people, to assign these festival coins stamped with the sacred symbols of Zeus to the city of Elis; but that city contained no sanctuary of Zeus², was no trade-centre requiring any large issue of money, and was not even founded until some fifty years after the Olympic coinage first appeared.

The Elean mint, then, was at Olympia and under the protection of Zeus, whose types the coins bore. The temple of Zeus, the foundations of which still stand, was not begun until the second quarter of the fifth century. We do not know whether an earlier temple preceded it. It is certain, however, that the worship of Zeus, the great altar of Zeus, and the priesthood of Zeus were all there for centuries before the Zeus-mint of Olympia began to issue coins.

The other Peloponnesian coinage that was the product of a priestly rather than of a civic administration was the coinage of **Heraea** issued for the Arcadian Confederation. Apparently about 500 B.C. the Heraeans assumed the management of the national Arcadian Games, which took place at Lycosura and were associated with the festival of Zeus Lycaeus held on the summit of the Lycaean Mount. This coinage, religious and agonistic in character, was exactly parallel to the Olympic coinage and was consciously adjusted to it in such a way that, what the one mint lacked, the other supplied. Olympia coined mainly didrachms and drachms, Heraea only triobols and obols, of course of the same standard; the former displayed the badges of Zeus, eagle and thunderbolt, the latter Zeus himself on the obverse of the coins enthroned, holding a sceptre and letting fly an eagle from his hand. He is the Lycaean Zeus, who appears on sixth-century cups of Laconian ware³. On the reverses of these triobols appears **APKAΔΙΩΝ**, sometimes abbreviated, and the head of the goddess, daughter of Poseidon Hippios and Demeter, whom the Arcadians worshipped under the name of *Despoina*, "the Mistress" [Pl. XIII, 7, 8].

The close relationship which the coins prove to have existed

¹ By P. Gardner (*N.C.* 1879). He has since put the question: "if the coins were really minted at Olympia why did the German excavators find none there?" But the Germans *did* find a considerable number there and published them in a short article in *Berliner Münzblätter*. It is unfortunate that no corner could be found in the monumental *Ergebnisse* for the numismatic material that turned up.

² Pausan. vi, 24, 6 ff.

³ A. B. Cook, *Zeus*, i, p. 93, fig. 65 and p. 782, Pl. XLII.

between Olympia and Heraea is confirmed by an important sixth-century inscription engraved on a sheet of bronze found in the Altis¹.

The Persians had come, had seen, and had been conquered; but the Greeks generally did not hasten to commemorate the Persian defeat and their own victory with punch and anvil. There were other things to be done. Aegina might redecorate a temple, the Spartan regent Pausanias set up a votive tripod; but Athens was too busy with rising out of her own ashes and with re-organising the mines of Laurium to think of commemorative money. Farther north there were certain negative effects on coinage due to the Persian defeat. Thebes, crippled in punishment for her medising, was so reduced in power that she probably ceased for some years to mint money. Larisa abandoned the Persic standard, and instead of turning eastwards for commercial relations, began to look south, whence she now adopted the Pheidonian-Peloponnesian standard.

It is, however, possible to point to one isolated coinage in Greece that is not improbably to be associated with the victory of the Greeks over the Persians, namely, a brief issue of the Delphians.

H. DELPHI

Before the invasion the local monetary needs of **Delphi**, which was never the place of a great fair like Olympia, had been met by an issue of obols with the simple types of the sacred tripod on one side and a *phiale mesomphalos*, or shallow libation-bowl, on the other [Pl. XIII, 15]. Then suddenly during the first quarter of the fifth century came an ephemeral issue of large coins, with rams' heads and dolphins, Pheidonian didrachms and tridrachms [Pl. XIII, 14].

As on the later Delphian coins, all small denominations struck for local use, the ram's head and dolphin were the normal badges of Delphi; the ram being appropriate to Carnean, the dolphin to Delphinian Apollo. It seems needless to strive after an elaborate explanation of the reverse type, which suggests the coffering of a temple-ceiling, for it may merely have been the whim of a die-engraver who perceived the decorative value of architectural *lacunaria* as substitutes for the sunk compartments of an ordinary quartered incuse square. In the style of these

¹ E. L. Hicks and G. F. Hill, *Greek Historical Inscr.* p. 10, No. 9.

coins there is nothing that conflicts with the suggested date¹ 479/8 B.C., and it is probable that the gifts of the victorious Greeks to Apollo at this time put so much bullion into the hands of the Delphic Administration that it decided on this brief issue of large coins about the time when Pausanias was erecting the serpent-column and tripod as a memorial of Plataea. Again the reason of this issue lies in the economic consequences of victory. In their types the coins have no cryptic reference to victor or to vanquished.

I. SICILY

The history of the wars between Persians and Greeks is sometimes supplemented, often confirmed, occasionally brought into true perspective, by a study of the coins of the period. In contemporary Western Greece, however, it is far otherwise. There our knowledge based on ancient written history is so slight, founded as it is on passing notices in the pages of Herodotus and Thucydides and on the less reliable accounts of later and inferior historians, that coins are not infrequently the primary source of our knowledge. By their means we can gauge the magnitude and wealth of Croton, Metapontum, Messana, and Syracuse; with their aid we can often illuminate obscure statements made even by the two giants of the fifth century B.C.

A case in point is the story of Anaxilas, tyrant of Rhegium and later of Messana also. This worthy, of Peloponnesian-Messenian extraction, became ruler of Rhegium before 494 B.C., and maintained his kingdom until his death about 476 B.C. Like other tyrants risen from a small aristocracy, he seems to have had trouble with the nobles, his fellow-countrymen from the Peloponnese, when suddenly opportune help arrived from the East. The failure of the Ionian Revolt and the fall of Miletus in 494 B.C. induced a body of Samians to seek a new home in the West, and their objective became the north coast of Sicily. Anaxilas allowed them into Rhegium to take on supplies and a plot was hatched.

All this may be learnt from the coinage.

Before this happened **Rhegium**, on the Italian, and **Zancle**, on the Sicilian side of the strait, had issued money which betrayed

¹ J. N. Svoronos, *Bulletin de Corresp. Hellén.* 1896. P. Gardner, who occasionally tends to date coins too late rather than too early, errs in the opposite direction when, in his *Hist. Anc. Coinage*, p. 364, he proposes to raise these Delphian coins into the sixth century B.C.

two different influences. The latter had begun about 535 B.C. with coins having as an obverse type a large dolphin swimming into the sickle-shaped harbour of Zancle, and we are shown a splendid bird's-eye view of granaries, or large store-sheds standing on the quays [Pl. **xiv**, 5]. The reverse had an unusual incuse pattern with a scallop-shell in the middle. About 510 B.C. Zancle as well as Rhegium came under the influence of the "Pythagorean" system of coinage already discussed¹. However, when in 494 B.C. the emigrants from Samos arrived, they were induced by Anaxilas to seize Zancle in the absence of its ruler, Scythes, the latter being a vassal of a powerful despot in Gela named Hippocrates. Strangely enough, Hippocrates came to terms with the Samians leaving them in possession of Zancle, where for five years they minted coins of Attic weight with Ionian types.

Samos itself boasted three different blazons—the scalp of a lion, the head and neck (or forequarters) of a bull, and the prow of a galley of the type known as *Samaina*. One or more of these figured regularly on the Samian money [Pl. **xiv**, 1]. There can be little doubt that, when the exiles left the Asiatic coast, they brought along with them such bullion as they could lay hands on; and it is tempting to suppose that they minted it in their new home², for there have been found in Sicily, near Messina, a number of tetradrachms [Pl. **xiv**, 2] of Attic weight, having on the obverse a shield bearing a lion's scalp, and on the reverse the prow of a *Samaina* to left.

For five years, until the death of Hippocrates in 491 B.C., the Samians held the city. Then, however, Anaxilas of Rhegium suddenly seized Zancle, making his former Samian friends his subjects and renaming the place after the land of his origin, Messene. Two or three years previously he had begun to strike coins in Rhegium with a facing lion's head on one side and the head of a calf upon the other [Pl. **xiv**, 3], the second being, it seems, a canting type referring to Italy. At this early date "Italia" was *not* the whole peninsula but only a little region³, rich in pasture, at the very toe of Italy, just where Rhegium lay.

¹ p. 79 above.

² The paper by E. S. G. Robinson in *J.H.S.* 1946, p. 13 ff. supersedes the article by C. H. Dodd in *J.H.S.* 1908, p. 56 ff. In the latter the existence of a travelling mint was assumed.

³ Europe was named after a girl in a fairy-tale, Asia after a meadow, and Italy after a pasture.

Indeed an ancient commentator on Pindar described Anaxilas as "tyrant of Italia." But "Italia," which Oscans in the peninsula called "Vitelia," suggests the Latin word "vitulus," which means "a calf," Anaxilas, now in control of both sides of the straits, produced on the Sicilian side an issue of coins identical with those of the Italian side—lion's head facing and calf's head in profile—but having different legends, for the older issue had borne the name **PECINON**, but the later issue had the word **MESSENION**. [Pl. **xiv**, 4]. The despots of Greek Sicily were able to mingle skill and diplomacy, force and fraud in a fashion untroubled by any codes of conduct, and not one of them was more cunning than Anaxilas.

The year 480 B.C.—by Greek reckoning the 75th Olympiad—was a year packed with tremendous events. The Persians invaded Greece, the famous battles of Thermopylae, Artemisium and Salamis were fought, the Delphic priesthood came near to collaborating with Persia, in Sicily a powerful Carthaginian attack was launched against the Greeks and defeated with great slaughter at the battle of Himera by the despots of Syracuse and Acragas, despite the fact that the despot of Messana and Rhegium had shown sympathy for the Carthaginians. He—Anaxilas—instantly changed sides, made his peace with Gelon of Syracuse and gave his daughter in marriage to Gelon's brother. As a minor occurrence in the eventful year 480 B.C. it is recorded that in the Olympic Games, the mule-car entered by Anaxilas won¹. This event gave him so much satisfaction that he introduced in both his cities entirely new coin-types of a personal character which replaced the former lion and calf coins. About these new types Aristotle, who with few exceptions proves to have been well-informed on numismatic matters, had something to say²:

Sicily was without hares until the time of Anaxilas of Rhegium, but he imported and preserved them, and, as about the same time he won a victory at Olympia with his mule-car, he placed on the Rhegine coins the types of a mule-car and a hare.

¹ For the date see E. S. G. Robinson, *loc. cit.*, p. 17. Simonides wrote an ode in honour of the event.

² *ap.* Pollux, *Onom.* V, 75.

The types [Pl. **xiv**, 6, 7], then, were purely personal badges of the powerful tyrant and in no sense blazons of a civic character. How the Rhegines and Messenians reacted from these coins when the dynasty was expelled must be told in a later chapter.

From Anaxilas we pass to his more famous fellow-despot, the tyrant of **Syracuse**.

Gelon's victory in 480 B.C. at Himera, though of lesser magnitude than the victory of Pausanias at Plataea, brought him greater financial benefit; and the already wealthy Syracusans were able to add to their treasury, not only the riches of Hasdrubal's war-chest, but also an indemnity which, if we are to believe Diodorus, amounted to 2000 talents. Concerning this indemnity Diodorus has a tale to tell, which, though it has always been accepted at face-value, deserves to be treated with some caution. The relevant passage runs as follows¹:—

The Carthaginians . . . agreed to pay this (the indemnity) and offered a golden crown to Demarete, the wife of Gelon. For she, when importuned by them, used her influence when the peace terms were drawn up; and having been presented with the crown weighing one hundred gold talents², she struck from it the coin which was named *Demareteion* after her; it weighed ten Attic drachms, and on account of its weight was known among the Siceliote Greeks as a *pentekontalitron* ('fifty-litra-piece').

A substratum of truth underlies these words, for there can be no doubt that there were struck special coins commemorating the victory and that the *pentekontalitron* was one, *though not the only one*, which celebrated the event.

Gelon as ruler of eastern Sicily issued in the year 480–479 B.C. the following types:—at **Syracuse** a silver decadrachm (50 litrae) [Pl. **xiv**, 9] and a tetradrachm [Pl. **xiv**, 10] having on the obverse a victorious quadriga to right, above Nike crowning the horses, below a lion running: and on the reverse the head of a goddess to right wearing earring, necklace and laurel-crown, a circle round her head, outside it four dolphins, and **ΣΥΡΑΚΟΣΙΩΝ**. Further, he issued an obol [Pl. **xiv**, 8] having on its obverse a head of the goddess exactly like that upon the reverses of the larger coins; and on the other side **ΣΥΡΑ** and a wheel.

¹ Diod. Sic. xi, 26, 3; see also G. F. Hill, *Hist. Greek Coins*, p. 37 ff. and *Coins of Anc. Sicil.* p. 53 ff.

² These must have been small gold-talents (see p. 6 f.), not heavy Euboic talents. Cf. Seltman, *Athens, its History and Coinage*, p. 114.

Simultaneously at **Leontini** Gelon issued a tetradrachm with an obverse like that of the decadrachm above; on its reverse a head, again of like type, but with no laurel-crown, four corn-grains set around it and the legend **LEONTINON** [Pl. **xiv**, 11]. Along with this there appeared another Leontine tetradrachm with an obverse like that of the last described coin, and upon the reverse a head of Apollo, his hair in formal locks, laurel-crowned, four bay-leaves set round it, or three and a lion below in place of the fourth leaf [Pl. **xiv**, 12].

Thus at Syracuse Artemis-Arethusa, at Leontini Artemis and Apollo, received as it were on the coinage public thanks for the victory over Carthage, and Gelon took care likewise to offer one-tenth of the spoils to Apollo at Delphi in the shape of a votive tripod of gold the value of which has been estimated at 1220 drachms of gold¹.

But concerning the coins we may doubt whether Queen Demarete was really instrumental in their issue, since, apart altogether from Leontini, tetradrachms and obols were minted at Syracuse as well as fifty-litra-pieces, and Diodorus makes no mention of the two former. We may assert positively that more money, much more than would have been represented by converting into silver the golden crown, which the grateful Carthaginians gave the queen, was coined in the shape of fifty-litra-pieces; for about a dozen are extant at the present day, whence it is to be presumed that a possible 50,000 must originally have been minted².

It is far more probable that all the money issued by Syracuse for a year after the victory, whether of the ten-drachm, four-drachm, or obol denomination, was struck from dies of the so-called "Demareteion" type showing Arethusa-Artemis³ wreathed with bay leaves.

How then did the largest coins of this type come to be associated with the name of Queen Demarete? Clearly Diodorus is not to be trusted in his explanation, for he had obviously never seen one of these coins since he thought they were of gold, though they are actually of silver. We can only suppose that the lady's name was in everyone's mouth at the time when the victory-

¹ See A. J. Evans in *N.C.* 1894, p. 193 ff.

² On the survival-rate of ancient coins see *N.C.* 1925, p. 121 ff.

³ It seems safer to give this name, rather than that of Nike, to the goddess.

coins were minted on account of her supplication on behalf of the enemy, and that possibly the charming and markedly individualistic head of the goddess on the coins was thought to bear some faint resemblance to the queen¹. That would be sufficient to earn these coins, and particularly the large ones new to the Siceliote Greeks, a royal appellative. As the first French postage-stamp with the idealised head of *La République*² became known as "Marianne," so the more dignified victory-piece of Syracuse was dubbed the "Demarete-coin."

Without a doubt, then, the *types* of the Demareteia were commemorative. But is the mere size commemorative too? Almost certainly, no. The Greeks were slow to realise that if you flooded the market with silver you depressed that metal's value, for silver itself was the measure of value to them; and so, when sudden wealth became theirs, they proceeded to coin it in a lordly manner which modern economists could only regard as injudicious. Just as the Athenians six years before celebrated the accession to the Treasury of unexpected wealth from Laurium by a sudden issue of large coins, so now Gelon, his treasury glutted with the wealth of Carthage, poured money into the markets of the West³. Speed in coining was the order of the day, and to get the bullion coined speedily a large denomination was issued.

The types of the Demareteion, like the types of great numbers of Greek coins, are commemorative. The size is not. This obvious fact should help us to disabuse our minds of an old fallacy which has been perpetuated by the bad habit of terming these and other large Greek coins "Medallions⁴." The war-medal notion, the medallion concept, is not one to be applied to Greek coins of large diameter. We have already dealt with the big silver pieces of the Orrheskioi, Derrones, Edones, Abdera, Athens and Syracuse; and, of the later large coins, those of Acragas, Babylon,

¹ Cf. Seltman, *Masterpieces of Greek Coinage*, p. 49.

² The head of *La République* was itself ultimately derived from that of the Syracusan goddess.

³ Sir A. J. Evans in *N.C.* 1894, p. 199 f. draws attention to the copious Syracusan coinage which followed Gelon's victory. E. Boehringer, *Münzen von Syrakus*, places all these abundant issues rather earlier; probably erroneously.

⁴ "Peccavi"; *Athens, its History and Coinage*, p. 106, footnote 3. It is time that the "Medallion-concept" should be consigned, along with the antiquated terminology of Roman "first and second brass," to the waste-paper basket.

Carthage, Hieron II, Eucratides, and the Ptolemies can no more be regarded as commemorative by reason of their size than can the large coins already described.

The second city of Sicily, **Acragas**, had likewise had a hand in the defeat of the Carthaginians at Himera. The third member of the Sicilian group of despots, Theron, the contemporary of Gelon and Anaxilas, had become tyrant of Acragas in 488 B.C. His advent to power, however, did not affect the coin-types of his city. But about 482 B.C. he made himself master of **Himera** and, as has already been stated, shared in the Greek victory there. The seizure of Himera resulted in a change in its types, the first of which had been a strutting cock. Round about 500 B.C. the Himereans, wishing to have double-typed coins but being, it would seem, somewhat devoid of originality, had adopted as reverse type a simple hen [Pl. **xv**, 1]. Their subjugation to the despot of Acragas did not deprive them of the right of coinage, but they were obliged to substitute for the hen a crab, one of the Agrigentine devices [Pl. **xv**, 2, 3], the adoption of which must have symbolised to any Greek of the time the dominion of Acragas over Himera, a dominion which endured for over a decade.

The archaic coins of Acragas, Himera, Syracuse, and various other Sicilian cities have a peculiar charm of their own, which they owe both to their artistic quality and to the technical excellence of their production, for they are almost always circular, of even thickness, and struck with well-centred designs. Many of them too are gems of archaic art produced by engravers with an admirable sense of design. It is only when we begin to set beside them a perfectly designed "owl" struck in Cleisthenic Athens [Pl. **v**, 11], a lion and bull from Acanthus [Pl. **vii**, 9], a compact eagle and a Nike from Olympia [Pl. **xiii**, 11, 12], or an Eretrian octopus and cow [Pl. **xi**, 1, 2], that we realise that Hellas about 500 B.C. produced even finer masters of design than Hellenic Sicily.

NOTE. Concerning the Chersonese, p. 85 f.: I am unrepentant, and still consider attempts to take away the coins of Miltiades and other Phliads from Chersonese and to give them to Chalcis (already well supplied with coinage) as unimaginative and perverse.

CHAPTER VII

THE ATHENIAN EMPIRE

A. OLYMPIC ART

THE exalting effect on the entire mental and moral outlook of the Greeks produced by the victory over Persia can only with difficulty be appreciated since, after the lapse of twenty-four centuries, we can catch no more than the dim reflex thereof in the art and letters of Greece. Every able-bodied Greek, outside the medising states, had fought in person at Salamis or Plataea. He was one of the people who had seen this thing through, and the ecstasy of self-discovery which possessed him for years afterwards speaks to us still from the lines of the *Persae* of Aeschylus, and more subtly from the mighty fragments of the figures that once filled the gables of the temple of Olympian Zeus.

The gods, and man, trained physically to perfection, had done this thing, and Olympia was the resort and symbol of both alike. For the next fifty years, accordingly, Olympia rather than Delphi became the spiritual centre of Greece, and the art that flourished there left its brilliant mark on the coinage minted for the great festivals. Moreover the coinage of **Olympia** may be taken as forming a fitting introduction to the period of fifty years between the two wars, Persian and Peloponnesian, typical as it is of the Greek spirit of the time.

Eagle and thunderbolt continued to be the prevailing types on the money of Olympia, but Nike occurred more frequently than in the archaic period, and the figure of Zeus himself appeared on some of the coins. Their inscriptions are varied, for, besides **FA**, we find **FAΛEI**, **FAΛEION** and in one case **ΑΛΕΙΟΝ** [Pl. **xv**, 10]; while some of the didrachms with the figure of Zeus are marked as Olympic by the word **ΟΛΥΜΠΙΚΟΝ** [Pl. **xv**, 4, 5]. The splendid eagles on these coins carry in their talons various types of prey; a serpent, tortoise, hare, or lamb [Pl. **xv**, 4, 5, 6, 9]. Nike, whether running, standing, or seated [Pl. **xv**, 7 to 10], seems at Olympia even more attractive than her western sisters at Terina [Pl. **xxi**, 3 to 5]. The striding Zeus, from whose left hand the eagle flies, and whose right wields the thunder-

weapon, the seated god with his bird and bolt, or with sceptre and bird [Pl. **xv**, 4, 5, **11**, **12**], all are influenced by cult statues, yet they are not exact copies¹; for it was only a later age² that sought to advertise statuary on coinage by little pictures of the works of art which visitors should not miss. An early engravers' signature appears on a reverse. It is that of ΕΥΘ upon one of these didrachms with a running Nike [Pl. **xv**, 7].

All these Olympian coins were still issued from the mint of the priests of Zeus, for the Hera-mint was not to be opened until the year 420 B.C. But if the priests of Zeus employed some of the best die-engravers in all Greece to sink their dies, they were served by some of the most careless of mint-operatives. Of the two hundred odd surviving didrachms struck at Olympia between 470 and 430 B.C., there is hardly a coin which is struck in such a way as to show all of both types on both sides. Their popularity, however, seems to have been unimpaired by their irregularity, and their circulation in Peloponnesse was only second to that of the "Turtles" of Aegina. Frequently they were countermarked with little devices, some of which can with probability be assigned to other Peloponnesian states, as, for example, the Gorgoneion to Tegea [Pl. **xv**, 10]³. Comparatively little fractional currency emanated during this period from the Olympian mint, the need being supplied mainly by the neighbouring mint of Heraea in Arcadia, which continued to issue triobols with Zeus Lycaeus on the obverse and the head of "the Mistress" upon the reverse [Pl. **xv**, 13]⁴.

B. THEMISTOCLES

During the fifty years which intervened between the Persian and Peloponnesian wars the interest centres principally upon Athens and her empire, and attention must now be focussed on that state and her subjects.

The Athenian who left his mark most conspicuously on

¹ A. B. Cook, *Zeus*, ii, pp. 741, 757, 758.

² In Greece itself the custom of advertising local objects of interest, temples and statues on the local bronze coinage of cities reached its highest development in the Hadrianic and Antonine age.

³ The gorgoneion is in a small circular depression over the eagle's head. It is the type of certain small Tegean coins; *B.M.C. Peloponnesse*, Pl. XXXVII, 6, 7.

⁴ See p. 97.

coinage—but not the coinage of Athens—was Themistocles. Herodotus was not altogether favourable to the statesman, if only for the reason that he had caused the ostracism of Xanthippus, father of Pericles; and Herodotus was accordingly not slow to emphasise the duplicity, though he could not but admire the genius, of the saviour of Athens. Expelled from Athens in 471 B.C., he found himself after varied adventures an honoured subject of the Great King, Artaxerxes son of Xerxes, and became despot of **Magnesia** in Ionia between 463 and 450 B.C. Here he issued coins, in his own name and that of his subjects, having on the obverse the figure of Apollo to left holding a bay-laurel branch, with the inscription ΘΕΜΙΣΤΟΚΛΕΟΣ, and on the reverse Apollo's falcon between the letters **MA** standing for *Magnētōn* [Pl. **xv**, 14, 15]. These were didrachms of Attic weight, an anomaly in Asia Minor, and it is perhaps more than a curious coincidence that of the four surviving specimens of this coinage, two are ancient forgeries¹, "bad money," having a core of copper plated with silver. A statesman, so given to double-dealing as Themistocles was reputed to have been, would not have been averse from deceiving his own subjects by uttering false coin.

C. ATHENS

The coinage of **Athens** must have begun afresh about 478 B.C. The Persians had put an end to the working of the Laurian silver mines, and it must have been several months after the last Persian occupation of Attica before silver could flow again into treasury and mint.

On this revived coinage the hair of Athena was depicted in a novel manner. On the rare coins issued between 488 and 480 B.C. [Pl. **xii**, 17, 18], the loop of hair in front of the ear was the more prominent, the wave from over the forehead passing beneath it. Now, after 478 B.C., the wave from over the forehead passed right back to the ear, and beneath the wave there came out a hanging loop of hair [Pl. **xvi**, 1, 9, 10]. In other respects the types of obverse, as of reverse, remained unaltered.

During these years of prosperity the quantity of Athenian

¹ R. Weil in *Corolla Numis.* p. 301 ff., thinks the plated coin of Themistocles in the British Museum (our Pl. **xv**, 14) is the unofficial issue of a private forger. This is somewhat unlikely, for the coin is not, as he says, coarser than the specimens in Paris and Berlin, but only somewhat more archaic.

coinage issued was great and the variety of denominations¹ considerable, for there were struck, in addition to tetradrachms, drachms, triobols (or hemidrachms), diobols (or thirds), tri-hemiobols (or quarter-drachms), obols, and hemiobols [Pl. **xvi**, 1 to 6], no less than six small silver denominations all stamped with little owls in varying attitudes. These were the charming little coins which called forth a pleasing conceit in the second *parabasis*² of Aristophanes' *Birds*:

Little Lauriotic owlets shall be always flocking in,

You shall find them all about you, as the dainty brood increases,
Building nests within your purses, hatching little silver pieces.

The normal place where an Athenian carried these little coins was, however, not his purse, but his mouth, pouching them in one cheek. It was this habit which gave occasion for a bright passage in the *Wasps* of Aristophanes³. Two old men, Philocleon and Lysistratus, had been serving as jurymen in the Athenian Courts and were entitled to their day's pay—a triobol—for the jurymen's wage, which in the Periclean age had been one obol a day, was raised about 425 B.C. to three⁴. The two had drawn their pay from the paymaster, one drachma or six obols between them, and Philocleon tells what befell:

Once Lysistratus, the funny fool,
Played me the scurviest trick. We'd got one drachma
Betwixt us two: he changed it at the fish-shop;
Then laid me down three mullet scales: and I,
I thought them obols, popped them in my mouth;
O the vile taste! O la! I spat them out
And collared him!

And what said he?

The rascal

He said I'd got the stomach of a cock.

"You soon digest hard coin," he says, says he.

¹ Athens, 478 to ca. 430 B.C. The same obverse for all denominations. *Obv.* Head of Athena r. in crested Attic helmet decorated with three olive leaves. *Rev.* **AOE** owl r. head facing; behind, olive twig and waning moon; all in incuse square. **AR** tetradrachm. 17.43 g.

Rev. As last, no moon. **AR** drachm. 4.36 g.

Rev. Owl facing, between two olive twigs; incuse circle. **AR** Triobol. 2.18 g.

Rev. Two owls face to face, olive spray between them. **AR** Diobol. 1.45 g.

Rev. Owl facing, wings open, olive spray above. **AR** Trihemiobol. 1.09 g.

Rev. Owl as on drachm. **AR** Obol and hemiobol. 0.72 g.; 0.36 g.

² Lines 1106 to 1108.

³ Lines 788 ff.

⁴ It was probably never 2 obols. The three classes of pay in Athens, which are at times confused with one another, were (1) Heliast's, or Dicast's, or Jury-

The three obols paid to the jurymen of Athens were an institution giped at by Aristophanes on more than one occasion. In the *Knights*¹, for example, Paphlagon, representing Cleon the demagogue, when attacked by the Chorus, cries aloud for help to his sure supporters, the Heliasts, or old jurymen:—

O my Heliastic veterans, of the great Triobol clan,
Whom through right and wrong I nourish, bawling, shouting all I can,
Help me!

The popularity of Athenian money in the ancient world can best be gauged by a glance at such finds² as have turned up far from Greece itself. In Egypt at least nine different hoards containing such coins have been recorded; in Sicily they are common; Tunisia has produced one hoard containing them and another was turned up in Spain. To the east they have been found by the Tigris and the Oxus, while the bazaars of Rawal-Pindi in India have brought to light ancient middle-eastern imitations of the famous Athenian owls³. It is remarkable that so small a state as Athens should have produced a coinage of a reputation so great that it required the issue of Alexander's world-currency to eclipse it. Normally the "owls" were always minted in Attica, though it may be that an expeditionary force might at times strike coin for the payment of troops and sailors, a possibility to be inferred from the discovery in Egypt of a small hoard of Attic tetradrachms accompanied by an "owl" punch-die⁴.

D. SILVER IN THE ATHENIAN EMPIRE

The general tendency of Athens in dealing with the subjects of her Empire was to curtail their rights of free coinage, and particularly their right of coining silver, as much as might be possible. At first we find certain of those states that had been accustomed to the use of Pheidonian or Asiatic standards, compelled to issue coins on the Attic system; among them Cos,

man's pay; perhaps 1 obol under Pericles (but see B. B. Rogers' *Aristoph. Wasps*, introd.), 3 obols during the Peloponnesian War, if not before: (ii) Theoric pay for attendance at the theatre and festivals; 2 obols, time of Cleophon (see *Aristoph. Frogs*, 140 ff.); restored by Agyrrhius about 389 B.C.: (iii) Assembly pay; 1 obol introduced by Agyrrhius *ca.* 392 B.C., raised to 2 obols by Heraclidas, raised again to 3 obols by Agyrrhius *ca.* 389 B.C.

¹ Lines 255 ff.

² See S. P. Noe, *A Bibliography of Coin Hoards in N.N.M.* No. 78.

³ B. V. Head, *N.C.* 1906, p. 6.

⁴ *J.I.A.N.* 1905, p. 103 ff. J. Svoronos in *Corolla Numis.* p. 285 ff.

Thasos [Pl. **xxx**, 7; Pl. **xxix**, 3], and Acanthus, as well as Maroneia and Abdera, which issued Attic tridrachms. Not so **Aegina**, which continued to issue turtles sufficient to supply the needs of the Peloponnese [Pl. **xvi**, 7] until in 456 B.C. she was compelled both to pay tribute and to abandon the issue of coins.

Gradually Athens endeavoured to secure for herself a complete monopoly of silver coinage. The issues of Eretria, to take one example, were stopped after Pericles had conquered Euboea. **Troezen** in Argolis coined for a few years longer, but she was already employing the Attic standard [Pl. **xvi**, 8], the sole Peloponnesian city to do so. The unhelmeted head of Athena upon the drachms of Troezen recalls some of the heads on metopes from the Olympian Temple of Zeus. This girl goddess is one of the most perfect things on any coin [Pl. **lxiv**, 4].

It was perhaps as early as 449 B.C., hardly earlier¹, that the Athenians, having in 454 B.C. transferred the Delian Fund to Athens, issued a decree to their subjects prohibiting the minting of silver on any standard other than the Attic². About 415 B.C. they forbade the minting of silver altogether; and there survive three different fragmentary copies of the second decree, which contains a reference to the earlier. The three fragmentary inscriptions³, which come from Smyrna and from the islands of Siphnos and Syme, taken together, afford a fairly complete reconstruction of the decree, the essential part of which runs as follows:—

The Athenian People is to elect four commissioners of whom one is to proceed to each of the (tribute-paying) regions, to Ionia, to the Islands, to the Hellespont and to the Thraceward region. The election is to take place immediately. The Generals are to send off the commissioners within (blank) days, failing which each general shall pay a forfeit of ten thousand drachms.

The Archons in the various (tributary) states are to set up a copy of this decree upon a stone *stèle* in the market-place of the several cities, and the overseers are to set one up in front of the Mint. The Athenians will carry out these provisions, if the states are unwilling to do so of their own accord. Each Commissioner is to requisition such things as the Athenians enjoin (i.e. board, lodging, and transport [?]). The secretary of the Senate is to add to the oath of the Senate the following words: "if anyone in the (tributary) states strikes silver coins, or does not

¹ For further details see NOTE, p. 155 below.

² A. B. West, *N.N.M.* No. 40, p. 95 f.

³ F. Hiller von Gaertringen and G. Klaffenbach in *Z. f. N.* xxxv, p. 217 ff.

employ Athenian coins, weights, and measures¹, but employs foreign coins, weights, and measures, he is subject to the penalty laid down in the earlier decree, which was introduced by Klearchos." Private citizens are to surrender their foreign silver at such times as may be convenient. The (Athenian) state will then exchange it. Each man is to write down a statement of his amount and hand it in to the Mint; the overseers are to take it over and to inscribe upon whitened boards, which are to be set up before the Mint for all to see, each sum in separate columns, to wit, in one column the foreign money received, in the other the Athenian silver paid in exchange.

This was tyranny, open and unashamed. Athens might urge convenience, economic expediency, the advantages of a uniform currency, what you will. The fact remained that a state which might not "fly its national flag" by stamping its state device upon coinage was a state enslaved. It is no wonder that the Athenian fleet had to hold down a rebellious and resentful empire.

But it must be noted that the decree runs:—"if anyone in the tributary states strikes *silver* coins...he is subject to the penalty." There is no prohibition of the striking of gold. And this brings us to certain very notable exceptions among the members of the Athenian Empire.

E. ELECTRUM IN THE ATHENIAN EMPIRE

Five of the principal members of the Empire, Cyzicus, Mytilene, Phocaea, Lampsacus, and Chios, issued gold, or what was the equivalent, electrum coins; three of them, the first three mentioned, issued them in large quantities. There can be no doubt that the striking of electrum coins by these cities, and most especially by Cyzicus, was a matter of great convenience to Athens, who having no gold of her own had no cause for irritation at an issue which accommodated itself so admirably to the Attic standard; since it seems that a Cyzicene electrum stater was generally equivalent to 24 Attic drachms or 6 tetradrachms², and at the same time equal in purchasing power to the royal Persian gold daric.

¹ With this decree there has been aptly compared the passage in the *Birds* of Aristophanes (line 1040) in which the hawkler of decrees reads out:—*χρήσθαι Νεφέλοκοκκυγίας τοῖς αὐτοῖς μέτροισι καὶ σταθμοῖσι καὶ νομίμασι καθάπερ Ὀλοφύξιοι*. The date of the *Birds* is 414 B.C.

² For a discussion of the relative values, see P. Gardner, *Hist. Anc. Coinage*, p. 241 ff.

Cyzicus then was encouraged in the issue of electrum staters, sixths, and twelfths, weighing about 16, 2.6, and 1.3 grammes, while Lampsacus [Pl. **xvi**, 11] and Chios minted staters of about 15.35 grammes, and Lesbos and Phocaea, united by a monetary convention, recorded in an inscription¹, issued staters and sixths of 15.42 grammes and 2.57 grammes. One such stater of Chios, one of Lesbos [Pl. **xvi**, 16], none of Phocaea², and a bare forty staters of Lampsacus survive. But the staters of Cyzicus, and her *hektai*, or "sixths," as well as those of Lesbos and Phocaea, testify by their abundance to the large issues of these states.

The comic poet Eupolis, who flourished about 420 B.C., dubbed **Cyzicus** the city "chock-full of staters³," and during some two-and-three-quarter centuries that prosperous state issued her abundant electrum pieces⁴. Our immediate concern, however, is with the coins issued while Cyzicus formed a part of the Athenian empire between 478 B.C. and 410 B.C. During that, as during previous and subsequent periods, it seems that a fresh symbol occupied the field of the coinage every year, the city-badge, a tunny-fish, being added as a minor detail of the type [Pl. **xvii**, 1, 2]⁵. The main type was not infrequently borrowed from that of some other coin-issuing state, from Sicilian Gela or Syracuse [Pl. **xvii**, 11, 13], from Italiote Neapolis or Taras [Pl. **xvii**, 3], Thebes, Delos, Cyrene [Pl. **xvii**, 6], or Corinth [Pl. **xvii**, 12]. But during the Athenian hegemony, a greater number of types having a reference to Athenian legend or history existed than of types derived from any other state. Thus there appeared on the Cyzicene electrum coinage, besides the owl of Athens, such purely Attic subjects as Harmodios and Aristogeiton, a head of Athena Parthenos in triple-crested helmet, the upper half of Athena holding a ship's *aplustre*, Gē holding the infant Erichthonios, Cecrops, and Triptolemos in his dragon-car [Pl. **xvii**, 10, 4, 5, 8, 9, 7].

Lesbos and Phocaea between them coined mainly electrum sixths of staters, a denomination of which Cyzicus produced relatively few. As the Cyzicenes were marked by a small tunny-

¹ E. L. Hicks and G. F. Hill, *Historical Greek Inscriptions*, p. 180, no. 94.

² Their existence is, however, vouched for by inscriptions.

³ *Comic. Attic. Frag.* ed. Kock, 1, no. 233.

⁴ H. von Fritze in *Nom.* vii.

⁵ An interesting type is that of the Delphic omphalos flanked by eagles [Pl. **xvii**, 14].

fish, so the Phocaeans were marked by a small seal, the city's punning device, beside the main type, which was sometimes an animal's, but more usually a human head [Pl. **xvi**, 17 to 22]. The Lesbian pieces, a few with the letters **ΛΕ** or **Μ**, for "Lesbos" or "Mytilene," had a type on either side [Pl. **xvi**, 12 to 15], thus departing from the normal Greek-Asiatic tradition, which favoured the retention of the quatered incuse square upon the reverse of a coin. On the earlier of the Lesbian sixths the reverse type is, however, an intaglio design [Pl. **xvi**, 12, 13].

F. ATHENIAN COLONIES

An account of the money of the Athenian empire would be incomplete without some regard to the issues of two important Athenian colonies founded during the fifth century, Thurii and Amphipolis.

The history of the former is linked with that of the prosperous city of Sybaris, which was destroyed by the people of Croton in 510 B.C. The Sybarite survivors had at that time sought refuge in some of their own Italiote colonies, such as Laus and Poseidonia, inducing the first of these cities to embark on a coinage reminiscent of that of old Sybaris; for the type of **Laus** from about 510 B.C. was a river-bull looking over his shoulder, but the river-bull was now human-headed [Pl. **xviii**, 1]. Other refugees, settling in **Poseidonia**, which presently took to issuing double-typed coins having Poseidon¹ on the obverse and a bull on the reverse [Pl. **xviii**, 2], were able to exert so much influence in the state that the Sybarite initials **ΜΥ** (= **ΣΥ**) appeared on some small coins [Pl. **xviii**, 3], in place of the normal legend **ΠΟΜΕΙΔΑΝΙΑΤΑΝ** or **ΠΟΜΕΙ**. After an abortive attempt, backed by Hieron of Syracuse about 475 B.C., at a refoundation of the place, the Sybarites remained cityless until 445 B.C. In that year Pericles, turning his attention to the West, sent out a body of Athenians with other Greek colonists to join the descendants of the ancient Sybarites in the foundation of **New Sybaris**. The predominance of Sybaris and Athens in this venture was stressed by the rare coins that bear the devices of both states, the head of Athena and the bull of Sybaris looking back over his shoulder [Pl. **xviii**, 4]. Quarrels between the Italiotes and the colonists led to an appeal from the

¹ There is sometimes a dolphin under the god's foot and one beneath the bull.

latter to Athens, whereupon Pericles declared for a fresh colony, a settlement which was to be open to all Greeks. In 443 B.C. a new band of colonists, including the historian Herodotus, set out for the West. New Sybaris now became Thurii, and though a bare two-fifths of its citizens were of Athenian stock, they included in all probability those Attic potters who planted the Attic art of vase-painting on Italian soil¹, and Attic die-engravers, who could find poor scope for their skill on the stylised and commercialised money of the mother-city.

If we wish to see what Attic die-engravers, influenced by the plastic art of the Parthenon, at that time in process of building, could do, we have but to glance at the money of **Thurii**, which followed immediately upon that of New Sybaris. The types are the same, though the bull does not look back, and over his back appears the name of the Thurians, ΘΟΥΡΙΩΝ [Pl. **xviii**, 5, 6]. Before the century was out the types were slightly altered; Athena's helmet, decorated with various monsters, became more ornate, and the bull upon the reverse lowered his head to charge.

Statars and double statars in silver were issued, some of them signed by engravers named Histor and Molossos [Pl. **xviii**, 7, 8]. The head of Athena upon the Thurian coins was sufficiently admired to be copied in other Italiote cities, notably in Campania at **Neapolis** [Pl. **xviii**, 9] and its dependencies, Nola and Hyria, and at the city of Elea, or **Velia**, farther south, as well as at **Heraclea** [Pl. **xviii**, 10, 11], a Tarentine-Thurian foundation established in 432 B.C. near the site of ancient Siris.

Amphipolis was founded in 437 B.C., the year in which the Parthenon was completed. But this colony stood in a very different relationship to Athens from that of Italiote Thurii, for she was a tribute-paying member of the empire definitely debarred from the issue of silver. But after 424 B.C., once she was freed by the Spartan Brasidas, she was able, with the rich mines of Mount Pangaeum at hand, to embark upon an issue of one of the most magnificent series of coins ever produced².

Though struck on a standard prevalent in the North, one

¹ E. Pfuhl, *Malerei u. Zeichnung d. Griechen*, ii, p. 575.

² Amphipolis after 424 B.C.

Obv. Head of Apollo three-quarter face; sometimes a symbol beside him.

Rev. ΑΜΦΙΠΟΛΙΤΩΝ (or ΑΜΦΙΠΟΛΙΤΕΩΝ), between the lines of a frame or on a raised square frame; in the centre a flaming race-torch; sometimes a symbol or letter. Ⲑ Tetradrachm 14 g.; drachm 3.52 g.

selected in preference to the unpopular Attic standard, these coins with their heads of Apollo [Pl. **xvii**, 15, 16, 17], betray the strong influence of Attic art. For it is only necessary to compare the Amphipolitan god with the head of the seated Apollo carved upon the frieze at the eastern end of the Parthenon¹ to realise the debt of Amphipolis to her mother-city. It is almost certain that the first of these coins are earlier in date² than certain Syracusan pieces with facing heads to be mentioned later, which a consensus of opinion appears to place about 410 B.C., and the first Amphipolitan tetradrachm may therefore have been issued very soon after the city gained her freedom³.

In this brief survey of coinage during the period of Athenian domination, it is important to bear in mind the great predominance of the Athenian coins over those of other Greek states, a predominance which they were able to maintain in spite of their stylised formality [Pl. **xvi**, 10], because they were so constant in weight and so pure of metal. It might be reproached against Athens that, while she was employing Pheidias and Ictinus, she might have sought more competent craftsmen to make beautiful dies for her coins. But this would be to miss the whole purpose of coinage as a quick means to facilitate trade. For once a currency has become as familiar to barbarous peoples as the money of Athens had become, any alteration, any departure from the standardised types would instantly reduce its acceptability among them. It was for this reason that the Athenians felt obliged to continue the issue of sham-archaic coins long after the age of archaic art.

The barbarian preference for a known type of coin may well be illustrated from a modern instance, for the Abyssinians, having grown accustomed to the use of thalers of the Empress Maria Theresa⁴, which were first introduced to them in the last quarter of the eighteenth century, have continued to demand them ever since, and the Imperial Mint of Vienna continued up till 1914 to meet that demand by a limited issue of thalers with the portrait-bust of the Empress and the date 1780.

¹ G. Rodenwaldt, *Die Kunst der Antike*, Pl. 314.

² Thus von Fritze in *Nom.* iv, p. 24.

³ K. Regling in *Z. f. N.* xxxiii, p. 61, suggests 413 B.C., but I should prefer a somewhat earlier date. See A. B. West, *N.N.M.* No. 40, p. 168 footnote. "The assumption that Amphipolis imitated Syracuse and that its coinage was not antecedent to 413 is purely arbitrary, for the imitation might well have been reversed."

⁴ J. G. Frazer, *Pausanias*, ii, p. 5.

CHAPTER VIII

THE WESTERN GREEKS DURING THE FIFTH CENTURY

A. CORINTH AND HER COLONIES

THE silver coinages of two states in Greece were serious rivals to the money of Athens, but the subjection of Aegina in 456 B.C. effectively removed the competition of one rival. The other and more formidable remained—**Corinth**¹.

This city's coins, with the decorative types of Pegasus and the helmeted head of Athena Chalinitis, were commonly known as "foals," and were struck on the same standard as the Athenian coins, two "foals" weighing one "owl." The types established in the second half of the sixth century remained unaltered, save for the natural alterations which the changes of art promoted. A sequence of staters struck between 480 and 430 B.C. illustrates this [Pl. XVIII, 13 to 16; XIX, 1]. It was perhaps just after 480 B.C. that the Corinthians began to strike in their own mint "foals" for the use of some of their colonies², identical in type with their own pieces, but having, in place of the Corinthian initial Φ , under the winged horse, the initial of the particular colony for whose use they were intended: Λ for Leucas, A for Ambracia [Pl. XVIII, 12; XIX, 2], and F for Anactorium (originally Wanaktorion). After a short time, however, these colonies, and later on certain others, opened their own mints where they coined their own staters of Corinthian type; and indeed in the fourth century the practice of striking "foals" spread to Sicily and Italy³.

Adjunct types or symbols appear on most of these coins from about 460 B.C. onwards, and, it is, with our present limited knowledge, impossible to determine the system according to which these symbols were employed⁴. It is fairly clear from the

¹ See pp. 39 and 53 above for the earlier coins of Corinth.

² O. Ravel, *The 'Colts' of Ambracia*, *N.N.M.* No. 37, p. 83.

³ In Sicily; Syracuse and Leontini: in Italy; Locri, Mesma, Rhegium Terina, Heraclea and the Lucanians (see K. Regling, in *Festschrift C. F. Lehmann-Haupt*, Vienna 1921, p. 84 footnote 1).

⁴ O. Ravel, *op. cit.* p. 8 ff.; J. B. Cammann, *N.N.M.* No. 53.

irregularity of their use that they are not, as the symbols on the coins of Cyzicus, Abdera, and some other states doubtless are, the badges of annual magistrates. Neither is it satisfactory to endeavour to read political or historical allusions into any of them¹. A possible suggestion is that they may be arbitrarily selected devices intended to mark a set period of coinage, the period itself perhaps being variable in length. Possibly all the money issued from a single shipment of silver might bear one mark, and the bulk of a shipment would, of course, vary greatly. Whatever the system employed, we must regard the symbols as in the nature of control-marks², of which written records were doubtless kept, so that some responsible official or officials might be proceeded against if the money with the control-mark or marks, with which he or they had been concerned, were at fault.

Perhaps the most attractive of the Corinthian colonial issues were those produced from the mint of **Ambracia**, which, during the fifth and fourth centuries, struck coins marked with a series of conspicuous symbols, often referring to some local cult³ [Pl. **xix**, 3, 4, 5].

Corcyra, which had begun its cow-and-calf coinage at an early date⁴, continued the issue, unchanged save for stylistic improvements [Pl. **xix**, 6], and struck fractional currency, some of which bore a head of Hera, some an amphora [Pl. **xix**, 7, 8]. The state's violent revolutions, recorded by Thucydides, have left no recognisable mark upon its money.

B. THE GREEKS OF ITALY

The century between 480 and 380 B.C. saw, among the western Greeks of Italy and Sicily, the issue of plentiful silver from the mints of many states. A reference has already been made⁵ to the money of Thurii, Heraclea, Velia, and Neapolis. The types of all these issues were strongly influenced by Attic art of the Pheidian age; and the influence of that art, sometimes admixed with other traditions, extended to the coinage of other Italiote cities.

Of these by far the wealthiest and most important was the

¹ As O. Ravel has suggested *op. cit.* p. 91.

² E. J. Seltman has indicated the existence of alphabetical control-marks on the early coins of Thurii (*J.I.A.N.* 1913, p. 5).

³ O. Ravel, *op. cit.*

⁴ See p. 70 above.

⁵ p. 115 above.

prosperous city of **Tarentum**¹. Before 510 B.C. its incuse staters of "Pythagorean" form had given place to smaller, thicker pieces, depicting Phalanthus riding a dolphin, a cockle-shell beneath, and, as a reverse type, either a wheel, a winged sea-horse, or an archaic head of Taras, first founder of the city [Pl. **xix**, 9, 10, 11]². The latest of these seem to have been contemporary with the earlier pieces of a series of coins which followed showing, on the reverse, a seated male figure—probably Taras again—which, in its general pose and style, recalls certain early Laconian monuments³ [Pl. **xix**, 12] on which the dead hero holds up a large drinking-cup. But the latest pieces of the same series have already fallen under the spell of Attic art, introduced through Thurii; and the graceful bending hero, who sits upon a stool and, leaning forward, holds out a struggling bird to a cat which leaps up to seize it, supplies a startling instance of *genre* art, such as we should scarcely have expected for two more centuries. Yet the obverse of the same coin [Pl. **xix**, 13], with its dolphin-rider, beneath whom there swims a large crayfish, proclaims its fifth-century date.

Before the series with the seated hero had come to an end, another and more enduring series had sprung up beside it—that representing the famous "Horsemen of Tarentum⁴," destined to become the most abundant coinage of Italy until the day when the silver of Rome was to replace the silver of Calabria. On the obverse of this series the dolphin-rider still appears, holding varying attributes in his hand; on the reverse is always a horseman; sometimes a fully armed rider, sometimes a boy-jockey, now standing beside his mount, now leaping from it, crowning it with a wreath, kneeling beneath its belly and extracting a stone from its raised fore-foot [Pl. **xix**, 14, 15; Pl. **xx**, 1 to 4]⁵.

¹ For the earlier coins of the city, see p. 79.

² Diobols and obols have (i) cockle-shell. *Rev.* Wheel. (ii) Dolphin. *Rev.* Hippocamp. Litrae and half-litrae have (iii) half-hippocamp. *Rev.* Head. (iv) Cockle-shell. *Rev.* Dolphin.

³ The famous funeral stelae from Chrysapha; B. Schröder, *Handbücher d. staatl. Mus. zu Berlin*, ed. 3, p. 45. M. N. Tod and A. J. B. Wace, *Catal. of the Sparta Mus.* pp. 102 ff., figs. 1, 2, 3, 6, 10. For the Tarentine series cf. M. P. Vlasto, **ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ**, *N.N.M.* No. 15.

⁴ A. J. Evans, *The Horsemen of Tarentum*, *N.C.* 1889, has classified these coins in ten periods. Subsequent research has led only to slight modifications of the chronology then proposed.

⁵ Terracottas with similar equestrian types have been discovered on the site of Tarentum. See A. J. Evans in *J.H.S.* vii, 1886, p. 1 ff.

It is noteworthy that the staters of Tarentum, as of the majority of the Italiote cities, weighed about 8·20 grammes when coining first began in the west; but during the subsequent two centuries and a half, the standard tended towards a steady decline, sinking in time to about 6·40 grammes. On this subject there is room for much further research, for there are yet many unsolved problems in the metrology of the Greek-Italian coinage¹.

Metapontum had continued her incuse coinage² for a longer period than her neighbour, Tarentum; but by the beginning of the fifth century, the coins began to bear two types. The ear of barley, the city's coat-of-arms, at first still continued to occupy the obverse and is frequently represented with a locust upon it; on the reverse appears the figure of a god or hero, Apollo, Heracles, the river Acheloos [Pl. **xx**, 5]. The last is accompanied by an inscription reading **ΑΨΕΛΟΣΟ ΑΕΘΛΟΝ** ["for the games of Acheloos"], a record of games held in the river-god's honour, on which occasion a special coinage was issued. Before the century was out the Metapontines had transferred the ear of barley and its accompanying inscription **ΜΕΤΑ**, or **ΜΕΤΑΠΟ**, to the reverse of the coinage, and had reserved the obverse for a series of divinities and heroes, whose heads appeared, often with names inscribed beside them, a practice which was continued into the fourth century. Among the Immortals were Heracles, Apollo Karneios, Hera, Persephone, Athena, and Dionysus, and, with labels, Homonoia, Hygieia, Soteria, Nike, Apollo, Zeus Eleutherios, Demeter, and later on, two local heroes, Leukippos and Tharragoras. No other Greek city in the West shows so remarkable a series of divine heads on its coinage [Pl. **xx**, 6 to 13]. The most brilliant of the city's engravers was Aristoxenos, who signed a number of dies [Pl. **xx**, 8].

Almost as abundant as the Metapontine was the money coined in **Croton**, a city which likewise followed the policy of abandoning incuse pieces for those with double types³. Probably during the first quarter of the fifth century coins were issued having on each side a tripod in relief [Pl. **xx**, 14], one of the

¹ cf. S. W. Grose, *N.C.* 1915, p. 179 ff.

² p. 79 above. For the Metapontine coins, see S. P. Noe's publications in *N.N.M.* Nos. 32, 47.

³ The earlier coins are described above, p. 78.

tripods being accompanied by a variable symbol¹. The inscription on these coins still begins with the archaic *koppa*. In the second half of the century, however, *kappa* has been adopted for coins which have the legend **ΚΡΟΤΟΝ** or **ΚΡΟΤΩΝΙΑΤΑΝ**. One of these depicts on the obverse Heracles, who is labelled *oikistes*, or 'founder,' and is seated upon his lion-skin spread on a rock before a lighted altar; he holds a branch and a club, his bow and quiver lie beside him. In the exergue are two fish. The reverse of this coin is less attractive with its picture, almost comic, of the hero's rival, Apollo. In the centre a great tripod hung with fillets of wool; round one leg of it dodges Phoibos, his garment slipping from him, while he shoots at a formidable python, which rises up on the other side of the tripod [Pl. **xx**, 15]. So apparently but doubtless unintentionally frivolous a treatment of any subject on a Greek coin is unparalleled elsewhere².

Rhegium after the expulsion of her last tyrant and the establishment of the democracy in 461 B.C. abandoned the hare and mule-car types of Anaxilas³ and reverted to the lion's head which his coinage had originally introduced⁴. On the reverse, however, appeared a new type, a figure most probably intended to represent Iokastos, the original founder of the city⁵. Seated on a chair, he is frequently accompanied by some animal, a dog, crow, duck or serpent [Pl. **xxi**, 1, 2]; and he should be compared with the founder of Tarentum on contemporary coins of that city⁶.

Not far from Rhegium lay a small city which played no conspicuous part in history, but produced some of the most beautiful specimens of coinage. This was the Crotoniate colony, **Terina**, which began to mint about 480 B.C. A local goddess, possibly designated as Terina-Nike, appears on all the silver coins, her head on the obverse, her whole figure on the reverse. The heads owe much to the inspiration of Syracusan prototypes; the figures are at first typically south Italian, like that on the

¹ A series of curious 'alliance' coins of this period call for further study. Cf. *H.N.* p. 95.

² Unless we accept the fanciful suggestion of P. Gardner, *Types of Greek Coins*, p. 171, that, on a coin of Tarsus, Sardanapalus is snapping his fingers at Heracles.

³ See p. 101.

⁴ See p. 100.

⁵ For a summary of the theories concerning this figure see *H.N.* p. 109.

⁶ See p. 119.

earliest known piece with a wingless Victory, carefully labelled **NIKA**, upon it [Pl. **xxi**, 3]. But soon after 420 B.C. a marked change is apparent. It was about this year that the Athenians seem to have completed the little temple of Athena Nike at the entrance to the Acropolis, and it is probable that shortly after its completion certain die-engravers left Athens for southern Italy, where they produced for the people of Terina dies of a subtle charm and pictorial quality such as distinguishes the famous Attic Nike-balustrade. On these coins there appears Nike playing ball, toying with a bird perched on her hand, standing with her foot on a rock, leaning on a pillar, figures which can hardly have been produced save by someone intimately acquainted with the balustrade [Pl. **xxi**, 4, 5]. Athena Nike had her counterpart in Terina Nike across the sea.

Neapolis and her neighbours have already been mentioned¹ as imitators of Thurian coin-types; but the die-engravers of these cities drew inspiration from other sources as well, notably from Terina and Metapontum. The goddess whose head usually figures on the abundant Neapolitan coins is generally described as Parthenope, though copied from goddesses of more southerly cities. A man-headed bull is the normal reverse type here [Pl. **xxi**, 6, 7, 8] as on the contemporary pieces of Nola [Pl. **xxi**, 9] and Hyria, and on the pieces issued from Neapolis in the name of the Campanians. He is perhaps Acheloos, perhaps some local river²; but the type is no more original than the obverse types of the coinage, for it is derived from Sicilian prototypes struck in Catana and Gela³. Before 400 B.C. a flying Nike makes her appearance over the monster in allusion, doubtless, to some Neapolitan victory.

There remains for consideration the northernmost of coin-issuing Greek states in Italy, **Cumae**.

That city's coat-of-arms was a mussel-shell, one of the natural products of a district where shell-fish thrived in the salt lakes of Avernus and Lucrinus, and it appeared upon the coins between about 500 and 423 B.C. when the city fell before the Samnites. The earliest coins depict, on the obverse, a lion's scalp

¹ See p. 115.

² The suggestion that he is Bacchus Hebon has also been put forward, *H.N.* p. 39. But see Neustadt in *R.E.* vii, 2584.

³ See p. 128 below.

flanked by two boars' heads [Pl. **xxi**, 10], but they are followed, probably about 474 B.C., by coins with different types. Silver pieces bear, some a head of Athena derived from a Corinthian model [Pl. **xxi**, 11], some a female head closely copied from Syracusan coins of the time of Hieron I¹ [Pl. **xxi**, 12]. With these go certain exceedingly rare gold coins having types resembling those of the silver [Pl. **xxi**, 14], save that on one a Corinthian helmet takes the place of an Athena wearing such a helmet. It is not improbable that this issue is to be connected with the Syracusan-Cumaeian alliance, which culminated in the destruction of the Etruscan fleet at Cumae in 474 B.C. and that the exceptional issue of gold in the West at so early a date was occasioned by financial straits in time of war². After this episode a nymph's head remained the normal type of the Cumaeian money [Pl. **xxi**, 13].

C. ETRURIA

More than any other Italiote city, Cumae was in commercial touch with the Etruscans, who were not always her enemies, and a brief note on Etruscan coinage must be given before we pass south to Sicily.

The weight-standard of the western cities of **Etruria** seems to be related, not to the south Italian, but rather to the Sicilian system³, for it appears based on a silver-unit corresponding to the *litra*, it has heavier units of Sicilian (i.e. Attic) weight, and it evidences a ratio between gold and silver of 15 to 1, which seems likewise to have been the Sicilian ratio. The Etruscan gold coins, however, are few and rare, issued probably on occasions when a shortage of silver prevailed. In one particular they and the silver pieces are peculiar; they mostly have a type on one side only, the reverse being flat and plain⁴. Nearly all bear marks of value ↓, **XXV**, **XX**, **XII**<, **X**, **V**, **II**<, for 50, 25, 20, 12½, 10, 5 and 2½ respectively. Heads of lions and Gorgons, figures of chimeras, boars, hippocamps are typical of the Etruscan love for things grotesque and gruesome [Pl. **xxi**, 15 to 17].

¹ e.g. Pl. **xxii**, 1.

² See p. 137.

³ cf. P. Gardner, *Hist. of Ancient Coinage*, p. 398, for an illuminating summary of Etruscan coinage. Gardner tends to date some of the coins rather late.

⁴ The only other region of the ancient world in which such one-sided coins were struck was Cyprus; see p. 64.

There is, however, another series of coins, probably issued from eastern Etruscan cities, based on a different standard—the Corcyrean variant of the Corinthian¹—having a stater weighing 11.33 g. Corcyrean trade dominated the Adriatic and naturally influenced those Etruscans who looked to that sea for their commerce. The types of the eastern issues also generally represent monstrous creatures and, except in one or two rare cases, have no inscriptions upon them, so that they cannot be ascribed to individual cities.

D. SICILY

Syracuse had celebrated her great victory over the Carthaginians by the issue in 480–479 B.C. of various coins of the so-called '*Demareteion*' type which have already been described². The dies for that victory-issue had been cut by an artist of real ability, but he did not continue to work for the Syracusan mint, in which inferior workmen followed him and made coins of a coarser mould³. And then in 474 B.C. a new Syracusan victory called for commemoration on the coins.

Hieron, who had succeeded to the rule of his brother Gelon, sent the Syracusan fleet to help his allies of Cumae against a large Etruscan armament which threatened destruction.

Pindar⁴ told how "the overbearing insolence of the Tyrhenians off Cumae brought grief to their ships; such losses they suffered, crushed by the lord of the Syracusans,—a fate which flung the flower of their army from the swift ships into the sea, delivering Hellas from hard bondage." The gold coins struck by the Cumaeans, probably to meet the emergencies of this war, have been mentioned⁵; Syracuse issued coins after the victory, which intentionally implied a parallelism between this success and the triumph over the Carthaginians six years before. Under the Syracusan chariot there had then been set the lion of Africa; beneath it there was now placed a great sea-serpent, or *pistrix* [Pl. xxii, 1], symbolising the sinister sea-power of the Tyrhenians. The appropriateness of this monster as the badge of

¹ See p. 71 above.

² See p. 102 f.

³ E. Boehringer, *Münzen von Syrakus*, leaves a coinless gap between 479 and 474 B.C.; it seems likely that this should be filled by his series xii d, which did not precede, but probably followed, the Demareteion series, which he calls xii e.

⁴ *Pythians*, i, 72–75.

⁵ p. 123 above.

the Etruscans is remarkable, for this and kindred fabulous marine creatures are common in Etruscan art, especially in tomb-paintings¹. The monster filled the space beneath the chariot in so satisfactory a manner that it was retained on the Syracusan coinage for a quarter of a century.

During that period the coins, of which eight denominations were struck², exhibit a remarkable range of head-types. Artemis-Arethusa is always represented, but she displays a surprising variety of *coiffures*. Her back-hair may be tucked under a head-band of pearls [Pl. **XXII**, 1], carefully rolled [Pl. **XXII**, 2], dressed almost like the hair on an early Victorian penny of 1837 [Pl. **XXII**, 3], worn low on the nape of the neck [Pl. **XXII**, 4] or high on the crown [Pl. **XXII**, 5]; once, it seems, she wears her hair waved and bobbed [Pl. **XXII**, 6]. About the middle of the century the *pistrix* was dropped from the obverses of the tetradrachms and the goddess was frequently represented with her hair in an elaborate *sakkos*, or cap [Pl. **XXII**, 7], swathed in soft bands [Pl. **XXII**, 8], or held in a net [Pl. **XXII**, 9].

The beauty of many of these heads is a testimony to the skill of engravers, who may well have held in Syracuse the kind of popularity that celebrated vase-painters were enjoying at Athens. By about the year 435 B.C. they had attained such favour that, for the next half-century, they were frequently allowed the distinction of placing their signatures upon the coinage of Syracuse, and the celebrity that they thus attained won them commissions to make dies in other Sicilian cities³. Sosion was the first artist to sign a tetradrachm in Syracuse [Pl. **XXII**, 10], and after him came Eumēnos, to be followed by

¹ F. Weege, *Etruskische Malerei*, fig. 55; Beilage iii, 1, 2; Plates 66, 76, 77.

² Syracuse 474-450 B.C. silver:

Obv. Four-horse chariot to r. or l., Nike crowning either horses or driver; in the exergue, *pistrix*.

Rev. **ΣΥΡΑΚΟΙΩΝ** around a female head which is surrounded by four dolphins. Attic tetradrachm.

Obv. Horseman. *Rev.* As last. Didrachm.

Obv. As last. *Rev.* As last, no dolphins. Drachm.

Obv. Female head. *Rev.* Cuttle-fish. Litra.

Obv. As last. *Rev.* **ΣΥΡΑ**, wheel. Obol.

Obv. As last. *Rev.* **ΣΥ**, wheel, six dots. Hemilitron.

Obv. As last. *Rev.* Wheel, five dots. Pentonkion.

Obv. As last. *Rev.* Two dots. Hexas.

A certain amount of bronze token-coinage was also employed.

³ For the fullest account of the engravers see L. Tudeer, *Die Tetradrachmen-prägung von Syrakus*, *Z.f.N.* xxx, 1913, p. 1 ff.

Eukleidas and Euainetos, the last perhaps of Athenian extraction¹. Euth(ymos?), Eumenes, Euarchidas and Phrygillos², as well as the two last mentioned, were engraving dies from the time of the defeat of the great Athenian armament in 413 B.C. down to the end of the century [Pl. **xxii**, 11, 12]; and Parme(nides?) was their contemporary, but all these artists seem to have been overshadowed by the famous pupil of Euainetos, Kimon.

More than one allusion to the defeat of Athens appears on these coins. Euthymos placed in the exergue, where once the lion of Carthage and the *pistrix* of Etruria had been, Scylla, guardian of the western straits, hunting an intruding fish out of her waters [Pl. **xxii**, 11]; Eukleidas, greatly daring, offered an affront to Athena herself. Catanian engravers had a few years before produced coins with a facing head of Apollo³; and Eukleidas, adopting the idea for Syracuse, represented a charming girl-Arethusa, facing, with loose hair, in and out of which the dolphins dive. But the maid of Syracuse, triumphing over the maiden-goddess of Athens, wore the triple-crested helmet of the Parthenos and hung round her neck the Gorgon from the aegis of Athena [Pl. **xxiii**, 1]⁴. So elaborate a design in high relief was technically unsuited to the reverse of a coin, and the punch-die quickly suffered damage. It required the brilliant Kimon, trained in the school of Euainetos, to correct the defect by transferring chariot to reverse and head to obverse, when he took over from Eukleidas the notion of striking coins with facing heads.

The result [Pl. **xxiii**, 2, 3], Arethusa—labelled ΑΡΕΘΟΥΣΑ over the hair—full of charm and graciousness, a picture technically perfect, but not really great⁵. Kimon stands to the master of the Demareteion as Polygnotos, the vase-painter, stands to Duris, or Kephisodotos to the sculptor of the Delphic charioteer. A better facing head than Kimon's had appeared on coins of Amphipolis [Pl. **xvii**, 15]; a greater artist than Kimon

¹ See Seltman, *Masterpieces of Greek Coinage*, p. 82.

² Phrygillos was a gem-engraver. A carnelian scaraboid with his signature survives; A. Furtwängler, *Antike Gemmen*, Pl. XIV, 6.

³ See p. 134 below.

⁴ She is generally described as 'Athena'; Tudeer, *op. cit.* p. 41; Head, *H.N.* p. 177; but loose hair and diving dolphins are, I suggest, unsuitable to the helmeted Parthenos.

⁵ It was extensively imitated in other cities, e.g. in Hyria, Neapolis, Pandosia, Croton, Motya, Larisa, and Olympia.

had produced fifty years earlier, at Sicilian Naxos, a coin [Pl. xxv, 9] worthy to be set beside the finest work of the Brygos painter. Kimon, the last of the great Sicilian engravers, already heads the period of change in the West, where it set in later than in Athens, earlier than in Peloponnesus.

The tetradrachms of Syracuse issued in the fifth century have been passed in brief review. A word must now be said about certain other denominations.

Chief of these are the decadrachms or fifty-litra pieces, on account of their size and showiness the most celebrated of all Greek coins.

Syracuse had marked her delivery from the great army of Carthage in 480 B.C. by the issue of '*Demareteia*¹, some of which were large coins of the value of ten Attic drachms. Their size had been occasioned by the wealth of silver which Gelon thought fit to throw upon the market. The booty which the Syracusans took from the Athenians in 413 B.C., when they destroyed the army of Nicias and Demosthenes, was sufficiently rich, including, as it must have done, the Athenian war-chests, to warrant once again a special issue of large coins. The occasion for their first appearance may have been the first celebration of the Assinarian Games founded to commemorate the Athenian *débauche* on the Assinarus. Euianetos² made the first dies [Pl. xxiii, 4, 5]; his chariot-horses on the reverse are an enlarged version of the horses on a tetradrachm, which he had engraved just before the Athenian siege began [Pl. xxii, 12], but he filled his characteristically large exergue with an Athenian panoply, shield, greaves, cuirass, and helmet, labelled as ΑΘΛΑ, "prizes."

For the obverse he created a new type of Arethusa and signed **EVAINÉ** below the head. The type was acclaimed with enthusiasm by fourth-century Greece. It appeared in facsimile inside cups from south Italy³, was copied on coins issued in Sicily, Spain, Gaul, and Italy, was imitated on the money of Thessaly, Locris, Peloponnesus, and Crete⁴. This Syracusan decadrachm issue was not, however, confined to a single year. The games were annual, the large coins immensely popular, and the

¹ See p. 102 above.

² A. Gallatin, *Syracusan Dekadrachms of the Euainetos Type*, p. 12 f.: see also A. J. Evans, *N.C.* 1891, p. 336 on the bulk of the booty.

³ A. Gallatin, *op. cit.* frontispiece.

⁴ A. J. Evans, *N.C.* 1891, Pl. XIV.

wealth and prestige of Syracuse increasing year by year under the able administration of Dionysius I. Hence decadrachms continued to be struck, perhaps for three decades¹ after the Athenian disaster; and Kimon [Pl. **xxiii**, 6; **xxiv**, 1], as well as lesser pupils of Euainetos [Pl. **xliv**, 4], took a hand at their production.

Some gold coins were issued by Syracuse in this period. It was perhaps during the siege that, funds having run low, the gold reserve of the temples was drawn upon for the issue of small coins [Pl. **xxiii**, 9]. A few years later, when the great Carthaginian invasion of Sicily reduced, for a time, all of the island except Syracuse, Dionysius found himself forced to coin gold once more. Euainetos and Kimon made him some dies, the larger of which had the same value as two, the smaller as one silver decadrachm, and which were therefore one-hundred-litra pieces and fifty-litra pieces [Pl. **xxiii**, 8, 10]. The obverse type of the larger coin was a head of Arethusa, its reverse, in allusion to the Greek struggle against Africa, Heracles strangling a lion. Silver drachms of the period had a local hero, Leukaspis, armed, on their reverses [Pl. **xxiii**, 7], a type destined to influence certain coin-badges in other states.

Before 430 B.C. a number of small copper coins, tokens, since their intrinsic value was very small, were issued in Syracuse, which like the rest of Sicily, with its native litra-standard based on a copper- or bronze-unit, was early in the field with copper money.

In the sixth century some of the lesser Siceliote cities had begun to model their coinage on that of Syracuse², and this process continued in the fifth. **Leontini** and **Gela** both struck chariot tetradrachms; the first, however, gaining its independence in 466 B.C., substituted a head of Apollo [Pl. **xxiv**, 2], but its issues ended in 422 B.C. **Gela** was more loyal to Syracusan tradition, and her chariot-obverses steadily followed Syracusan models. On the reverse there always appeared, generally in the form of the *protome* of a man-headed bull, the river-god *Gelas*; once, about 450 B.C., he is crowned by a goddess labelled **ΣΟΙΠΟΛΙΣ** [Pl. **xxiv**, 5],—the episode alluded to is lost to us—and once, anthropomorphised, he is a young god with tiny

¹ Some with the letter Δ [Pl. **xxiv**, 3] may be the issue of the tenth year.

² See p. 75 above.

bull's horns growing from his head [Pl. **XXIV**, 4]. On the last coin three superbly drawn mullets¹ swim round the head.

Himera, having successfully expelled in 472 B.C. her tyrant Thrasydaeus, son of Theron, was able to abandon the Agrigentine crab, which had been the mark of her subjection², and, issuing tetradrachms and didrachms, after the prevailing fashion³ placed the usual victorious *quadriga* on one side of her coins. The other bore the goddess, or nymph, Himera sacrificing at an altar, behind her a small seilen washing himself in a stream of water which pours from a lion-spout [Pl. **XXIV**, 7]. The allusion is to the medicinal hot springs of Thermae near by. On one special issue the charioteer is labelled ΠΕΛΟΣ, apparently referring to the victory of some Himerean in the Olympic chariot-race, of which Pelops was the mythical originator [Pl. **XXIV**, 6]. The name ΣΟΤΕΡ appearing beside the nymph on some of the didrachms possibly refers to the local god of the hot springs rather than to the goddess, whose title would have been *Soteira*.

Selinus⁴, in the far west of Sicily, struck, between about 467 B.C. and its destruction in 409 B.C., various denominations, of which the chief were tetradrachms and didrachms. In the first quarter of the fifth century the inhabitants of this city, suffering from malaria, had consulted the philosopher Empedocles of Acragas, who prescribed the, to us, obvious remedy of a drainage-scheme for the surrounding marshes⁵. The practical application of the scheme produced the desired results, but the coins prove that Apollo and Artemis, Heracles and the local river-gods obtained more credit for its success than the philosopher-engineer. On the obverse of the tetradrachm Apollo the Healer, *Alexikakos*, stands in a chariot beside his sister and shoots arrows at the pestilence. The obverse of the didrachm shows Heracles despatching with his club a marsh-frequenting bull. The other side of these coins depicts two local river-gods, the first, Selinus, the second, Hypsas, both sacrificing at altars of gods of healing, distinguished as such by the presence of a cock

¹ Imhoof-Blumer and Keller, *Tier- und Pflanzenbilder auf Münzen und Gemmen*, p. 44, Taf. vii, 1.

² See p. 105 above.

³ Gutmann and Schwabacher, *Die Tetradr. u. Didrachmenprägung von Himera*, Munich 1929.

⁴ W. Schwabacher, *Die Tetradrachmenprägung von Selinunt*, Munich 1925. A. H. Lloyd, *N.C.* 1925, p. 277 ff. For the city's earlier coins see p. 72 above.

⁵ Diog. Laert. viii, 2, 70.

on the larger and of a snake on the smaller coin [Pl. **xxiv**, 9, 8]. The selinon leaf, the actual device of Selinus, appears as a small symbol in the field.

It was probably after the defeat of the Athenians in 413 B.C. that Selinus issued some tetradrachms on which Apollo gave place to a winged Nike [Pl. **xxiv**, 10]. The obverses of these coins resemble closely those of the Syracusan pieces by Euthymos already referred to, which we have seen reason to associate with the triumph of Sicily over Athens.

The implacable rival of Selinus was **Segesta**, a city of non-Hellenic origin, but one sufficiently Hellenised by the first quarter of the fifth century B.C. to mint coins of a purely Greek character. Only in the inscriptions is the mixture of the local dialect betrayed. The **Β** in the curious legend **ΞΕΓΕΣΤΑΙΒΕΜΙ** may be the Megarian-Corinthian-Corcyrean **Β**, which equals **E**, possibly used by the Segestans to represent *ēta*. If so the inscription would mean, "I am the Segestan goddess"; variants of the legend are **ΞΕΓΕΣΤΑΙΑ**, **ΞΕΓΕΣΤΑΙΕ**, **ΞΕΓΕΣΤΑΙΟΝ**¹ and finally **ΕΓΕΣΤΑΙΩΝ** on one of the later pieces of the city, the last a reading due to the influence of the Hellenisers and purists.

Many more didrachms than tetradrachms were minted in this city, which had for its device a hound, that of the river-god Kremissos. The reverses of the didrachms, and of some of the larger coins too, bear the head of the nymph Segesta, a head copied, often most successfully, from contemporary Syracusan coins [Pl. **xxv**, 2, 3]. The majority of the tetradrachms are, however, indebted to Selinuntine prototypes, and have generally a representation of a young hunter [Pl. **xxv**, 1]—the god Kremissos in human form—accompanied by one or two of his dogs². The coinage came to an end in 409 B.C., when the city became subject to the Carthaginians.

A Sicilian city which enjoyed little more than half a century of real prosperity was **Camarina**, originally a Syracusan foundation on the south coast of Sicily. Gela refounded the city in 461 B.C., to which time possibly belongs a didrachm [Pl. **xxv**, 4] depicting a panoply, helmet and shield on the obverse, and, on

¹ For another theory see A. Holm, *Geschichte Siciliens im Altertum*, iii, p. 600.

² Ph. Lederer, *Die Tetradrachmenprägung von Segesta*, Munich 1910.

the reverse, a palm-tree flanked by greaves. The tetradrachms display four-horse chariots copied from contemporary Syracusan coins and a head of Heracles is the reverse type. Heracleidas of Catana was one of the engravers who signed some of these pieces [Pl. xxv, 5], and Euainetos came from Syracuse to make, or sent thence, dies for a didrachm with a facing head of the horned river-god Hipparis framed in waves and fishes: its reverse shows a nymph sailing on swan-back over billows [Pl. xxv, 6]—a *tour de force* for the die-engraver, but a little flashy, a little undignified for a coin.

Most of the Sicilian states mentioned above issued a certain number of bronze coins after the middle of the century.

The two cities which minted the most splendid coins by far of all the western Greeks were **Naxos** and her colony **Catana**. The sixth-century pieces of Naxos have already been described¹, and they had apparently no successors during the years in which the city was subject to more powerful neighbours. Catana fared no better, for Hieron of Syracuse expelled all its inhabitants in 475 B.C. to make way for a colony of Syracusans and Peloponnesians, five thousand of each².

Now in some respects the relations of the Syracusan prince to old Greece might be compared, if a modern parallel be permitted, to the relations of an imaginary philo-European President of the United States with Europe. He was anxious to obtain for the relatively new communities of Sicily the fullest measure of those cultural advantages which the older Hellas could provide, and he desired this most especially for his newest and most favoured state, which he named **Aetna**, discarding the older name, Catana. The greatest dramatist of Greece, Aeschylus, was summoned thither and produced a play³, in honour of the foundation; the greatest poet, Pindar, was induced to write in honour of Hieron and of Aetna a Pythian ode⁴, when the city was but five years old. The mythology of the district was sedulously linked to the lore of Hellas, and Zeus Aitnaïos bid fair to rival Zeus Olympios, locally. Half of the citizens were of Peloponnesian stock that the lump might be well leavened; and

¹ p. 71.

² Diod. Sic. xi, 49, 1.

³ The list of lost Aeschylean dramas gives two plays, the spurious *Women of Aetna*, the genuine *Women of Aetna*. Only the latter will have been by Aeschylus.

⁴ *Pyth.* i.

it may have been among these citizens that there came to Aetna a die-engraver from Greece.

A glance at the three coins next to be considered [Pl. **xxv**, 7, 8, 9] will make it clear that they stand entirely by themselves, and that their art and style bears no relation to that of the contemporary issues of Syracuse, Leontini, or Gela [Pl. **xxii**; **xxiv**, 2, 5]. The first tetradrachms of Aetna, Catana, and Naxos have an almost rude vitality, which is entirely absent from the more exquisite late archaic pieces like the Syracusan *Demareteion* and the first *pistrix* issues of 474 B.C. Perhaps it was in 470 B.C., the year in which Pindar composed the Pythian ode, that the Aetnaean tetradrachms were struck—one only survives—perhaps a few years later. The legend **AITNAION** surrounds the head of a bald, ivy-wreathed seilen; under the neck is a large scarabaeus beetle, an insect attaining great dimensions on Aetna, as the comedians tell us¹. On the reverse is Zeus Aitnaios, on a throne covered with a leopard-skin, holding a thunderbolt and a vine-staff; before him an eagle perched upon a pine-tree² [Pl. **xxv**, 7]. Silver litrae were issued having a seilen-head like that of the tetradrachms and, as a reverse type, a thunder-weapon resembling in shape the one in the hands of Zeus. Some of these are inscribed **AITNAI**, some **KATANE** [Pl. **xxv**, 10], and the latter are therefore to be dated round about 461 B.C., for in that year, the city suddenly regained its old name Catana. A part at least of its citizens were driven out by the old Catanaeans, who returned from Leontini to reclaim their property and lands after the death of Hieron.

The die-engraver who had produced the tetradrachm of Aetna apparently remained to make coins for the new government, which issued a tetradrachm with the device of a swimming, man-headed river-bull, the local stream Amenanos, a fish below him, a water-fowl above. The reverse of the coin depicts Nike advancing with a wreath, and is inscribed **KATANAION** [Pl. **xxv**, 8]. A comparison of the bearded bull's head with that of Zeus on the tetradrachm of Aetna and the drapery on the figures of both coins³ will leave little doubt that they are the

¹ Aristoph. *Pax* 73; Plato Comicus *Fragm. Com.* ii, 624 (Meineke).

² Brussels Museum.

³ cf. G. F. Hill, *Select Greek Coins*, Pl. I, 1, 2; Pl. XXXVII, 5; Pl. XXXVIII, 1, 2; Pl. LX, 3. Seltman, *A Book of Greek Coins* (Penguin Books) 1952, nos. 56, 57.

work of the same artist¹. He was particularly skilful at representing recession in depth as appears in his modelling of the left foot and right arm of Zeus, as well as of the belly and further legs of the river-bull. This exceptional skill at representing perspective makes it possible that we may recognise the same artist's hand in yet another coin, which would be his latest, the first tetradrachm of the Naxians struck after they regained possession of their city also in 461 B.C. [Pl. **xxv**, 9]. The magnificent head of Dionysus [Pl. **Lxiv**, 3] upon the obverse provides a fit companion for the seilen of Aetna; while, on the reverse, appears what is perhaps the finest design ever made for a coin, a tailed seilen squatting, facing, about to drink from a wine-cup². This fellow shares the big-headedness of Zeus and of Nike, and is handled with a sense of perspective that is masterly. The peculiar treatment of beards and lips dispose us to see the same hand at work first in Aetna and later at Naxos.

It seems probable that there is but one artistic home from which the robust virility of these coins can be derived, and that is Athens. Whatever the nationality of their engraver, he must have been thoroughly familiar with the work of the great Athenian vase-painters of his day. About 470 B.C. the Berlin painter, Duris, the Brygos painter, Makron, and the artist who worked for Kleophrades were still active in Athens. Let the seilen of Aetna be compared with seilen-heads by either of these three first painters³, the Zeus with Makron's seated gods or heroes⁴, Dionysus and the squatting seilen, with drawings by the Kleophrades painter⁵, and the debt to Athenian art will at once appear. It is not that the coin-engraver is indebted to any one vase-painter, but simply that he has fallen under the spell of this Athenian art.

The successors of the Aetna Master were not of quite the

¹ It seems impossible that the same hand should have produced *Demareteion* and Aetna tetradrachm as E. Boehringer, *Syrakus*, p. 41, suggests.

² "A kantharos of practically the Sotadean shape," J. D. Beazley, *Greek Vases in Poland*, p. 80 (addendum to p. 28). Sotades was making vases between 470 and 450 B.C.

³ J. D. Beazley, *Der Berliner Maler*, Plates 1-6, 14, 15, 17; Duris, cf. *Corp. Vas. Ant. Brit. Mus.* 6, Pl. 105 and Furtwängler-Reichhold, Pl. 48; The Brygos painter; E. Pfuhl, *Malerei und Zeichnung der Griechen*, iii, figs. 424, 426, 427, 430.

⁴ *ibid.* figs. 436, 437.

⁵ *ibid.* figs. 379, 374. Attic vases were exported to Sicily in large numbers.

same calibre, but the high standard which he had set may have given rise to the Catanian school of die-engravers among whom were numbered Prokles, an inferior artist, Choirion, the brilliant Herakleidas, and Euainetos himself, who worked for the mints of Syracuse and Camarina as well as Catana¹

For a few years after 461 B.C. tetradrachms of the river-bull and Nike type, including one with a design of a seilen vaulting over a bull, which presents a curious re-creation of a Minoan type [Pl. **xxvi**, 1]², were issued; and then Catana assimilated its coinage to that of Syracuse by adopting chariot-types, the reverses bearing heads of Apollo [Pl. **xxvi**, 2]. It may have been about 415 B.C. that Choirion made the first facing head for a Sicilian coin, and his colleague, Heracleidas, adopting the idea, turned his facing heads of Apollo slightly to one side [Pl. **xxvi**, 3], thereby obtaining the same pleasing effect which had appeared on the coins of Amphipolis and was to be carried on by the Syracusan Kimon. The tetradrachm that Euainetos made for the Catanians depicts a victorious chariot wheeling round the goal, the engraver's name being inscribed on a little tablet held in the hands of Nike. The head of Apollo on the reverse has a girlish quality, which heralds the beginning of a change in western glyptic art [Pl. **xxvi**, 4].

Naxos produced fewer coins than Catana between 461 and 404 B.C., her tetradrachms, didrachms, drachms, and triobols being the work of Prokles and other inferior copyists of the type created by the Aetna Master. Yet on the whole one may say that in all Sicily no city responded to Athenian influence as much as did Naxos.

The city of **Messana** continued to employ the coin-types that she owed to Anaxilas of Rhegium, the mule-car and the hare³, though soon after 461 B.C. the male driver gave place to a female figure sometimes labelled **MESSANA** [Pl. **xxvi**, 6]. It was perhaps on the expulsion of the tyrant in that year that the city decided for a brief period to resume its old name of Zancle and to issue coins with the old sixth-century dolphin type. But, with

¹ See pp. 126 f. and 131. Sir Arthur Evans has published a coin of Terina which appears to have a minute signature of the same engraver. *N.C.* 1912, p. 42 ff. The coin is now in the A. H. Lloyd Collection and shown on our Pl. **xxi**, 5.

² H. Bossert, *Alt Kreta*,² p. 29, note to 218.

³ See p. 101 above.

a view probably to conciliating the Messenian element in the population, the obverse of the tetradrachm bore a figure of Zeus Ithomatas, the god of Ithome in Peloponnesian Messene, which at that very date was besieged by the Lacedaemonians [Pl. **xxvi**, 5]. If we may regard this figure as a version of the actual statue of Zeus upon the mountain summit and the altar in front of him as a symbol of the national hearth of the Messenian nation, then we have here one of the earliest coins with a blazon of a propagandist character. Messana-Zancle has just shed the tyrant's yoke; may Zeus of Ithome and his worshippers in Messenia likewise secure freedom. That pious hope went unfulfilled for ninety-two years; but when Messenia did gain her liberty in 369 B.C. her first coins bore the device of Zeus Ithomatas¹.

The Zeus-type, however, must have been unpopular with the merchants who were accustomed to hares and mules, and so the old types were restored, though for a number of years the dolphin of Zancle found an incongruous place under the hare. Presently other symbols replaced the dolphin, and on one coin the hare itself took the place of an adjunct, being shown as leaping up to its protector, the god Pan, who is seated upon a rock [Pl. **xxvi**, 7]. The destruction of Messana by the Carthaginians in 369 B.C. put an end to this coinage.

There are numismatic records of a brief alliance between Messana and Locri in Bruttium², which must have been concluded round about 461 B.C. The most remarkable of these pieces³ is a tetradrachm of Messanian type but with the legend $\Lambda\omicron$ on either side.

The most magnificent of Sicilian cities, **Acragas**, continued its eagle and crab types⁴ well into the fifth century and struck tetradrachms [Pl. **xxvi**, 8], as well as two-drachm pieces and fractions. In the second half of the century the brilliant products of neighbouring mints provoked the Agrigentines to emulation. The eagle, as sometimes at Olympia, was shown tearing a hare; fish, bi-valves, and molluscs joined the crab on the reverse [Pl. **xxvi**, 9]. Then two eagles took the place of one, and Scylla joined the crustacean [Pl. **xxvi**, 10]. At last the victorious four-

¹ See p. 166 below.

² N.C. 1896, p. 107 ff.

³ In the Bibliothèque Nationale, Paris.

⁴ See p. 76 above.

horse chariot, so popular elsewhere, came to fill the reverses of the tetradrachms of Acragas. Symbols of varied types and the names of magistrates were added to the coins towards the end of the century [Pl. **xxvi**, 11]. And then, perhaps in an excess of *hubris*, Acragas produced some magnificent decadrachms. She had no occasion, as Syracuse had had, to thank the gods for deliverance from Carthage or from Athens. Indeed, with our limited knowledge, we can perceive no motive for the issue of these big coins other than a desire to outdo the products of Euainetos and Kimon; unless it be that the chariot victory of the Agrigentine Exainetos at Olympia in 412 B.C. moved his city to a monetary commemoration of his prowess¹. The obverse of this great piece displays two eagles upon a hare on a mountain-top, and on the reverse a charioteer handles his team as though he were just guiding it round the turning post of the hippodrome; but there is no ground line shown, neither is the name in the usual ethnic form, **ΑΚΡΑΓΑΝΤΙΝΩΝ**, but simply **ΑΚΡΑΓΑΣ**. This charioteer cannot be the eponymic hero of the city, Akragas, son of Zeus and Asterope, but Helios² in the sun-car hovering between sky and sea, an eagle above, a crab below [Pl. **xxvii**, 2].

There were many fine coinages that came to an end towards the close of the fifth century, because there were many great Sicilian cities which the Carthaginians destroyed or annexed. Before the disastrous Punic invasion took place a number of Carthaginian cities in the island had begun local coinages, which generally imitated those of Greek neighbours. Among them were Motya [Pl. **xxvii**, 6], which copied Segestan, Agrigentine and Syracusan types, Eryx, which adopted Agrigentine and Segestan, and Cephaloedium, which followed Syracusan designs.

In their earlier invasion of Sicily the Carthaginians had paid their troops in other than coined money, but, when the great invasion of 410 B.C. took place, their mercenaries had evidently become sufficiently familiarised with this medium to demand struck coin, and consequently the demand was satisfied. Gold in limited quantities and silver in abundance was coined, the former, with the types of a female head and a horse, or a date-palm and a horse's head [Pl. **xxvii**, 5]; the latter with a whole horse or its forepart crowned by Nike and on the reverse a date-palm [Pl. **xxvii**, 7]. On the silver are Phoenician inscriptions,

¹ Diod. Sic. xiii, 82.

² See N.C. 1948, p. 1 ff.

Qart Chadašt (i.e. "new city of Carthage") and *Machanat* (i.e. "the camp"), marking this as the money of an expeditionary force.

To meet the emergencies and sieges during the war, some of the Greek cities found themselves compelled to melt down reserves and to issue gold, even as Syracuse had done; these were Acragas, destroyed in 406 B.C., Camarina and Gela, both dismantled in 405 B.C. [Pl. **xxvii**, I, 4, 3]. Among the western Greeks, as in old Greece, the coining of gold was only resorted to when other funds were seriously curtailed.

E. THE FALL OF ATHENS

One of the indirect results of the Athenian expedition against Syracuse was to expose Athens to a shortage of silver so serious that she was forced on to a temporary gold standard. It will be appropriate to end this chapter with an account of the gold coinage, which is closely associated with the downfall of the Athenian Empire.

The greatest injury that Alcibiades did his country was the advice, on which the Spartans acted in 413 B.C., to fortify Decelea; for runaway slaves from the silver mines at Laurium could reach that stronghold, thirty miles distant, in a night. Once this became known, the miners deserted in such numbers that operations shrank speedily, and at last the silver ceased to be worked altogether. Athens had begun the war in 432 B.C. with a deposit in the Acropolis of 6000 talents, equal to 3,600,000 drachms of coined silver, while of uncoined gold and silver, the treasures represented a value of 500 talents, or 300,000 drachms¹. As a result, however, of the stoppage at Laurium, the reserve of coined silver was all of it exhausted by 407 B.C.; and, since preparations were being made on a large scale to fit out the fleet, which was destined to be victorious at Arginusae the following summer, it was decided to draw upon some of the golden offerings in the Parthenon and to convert them into coin. Of these celebrated pieces there survive at present, three or four staters [Pl. **xxvii**, 8]², three drachms or half-staters, three quarter-staters, three sixths, and three twelfths [Pl. **xxvii**, 9], representing a total equivalent of seven staters, out of an originally large issue. Their types are the same as those of the fifth-century

¹ Thuc. ii, 13, 3.

² In the R. Jameson Collection.

silver coins, but a little sprig of laurel is added to the reverse of each piece, for the gold had been obtained by melting down certain figures of Nike which presumably held sprigs of laurel¹.

Obviously this gold vanished quickly from the markets in such a time of crisis. Less than twelve months passed before the Athenians were forced to a wholesale debasement of the currency, and before the year 406 was out there were flowing from the mint, once famed for its faultless coins, wretched tetradrachms and drachms of yellowish copper poorly disguised by a thin wash of silver, which wore away after a few weeks of circulation [Pl. **xxvii**, 10, 11]. Such was the currency of Athens in the spring of 405 B.C., when Aristophanes produced the *Frogs*; and this base currency, contrasted with the new gold of the previous year, and the fine silver of the good old days now vanished, could not escape a reference in the *parabasis* of that play, for it was topical and it carried a moral. The Chorus speaks:—

Often it has crossed my fancy that the city's apt to deal
With the very best and noblest members of the commonweal,
Just as with our ancient coinage and the fine new-minted gold.
These, sir, these our sterling pieces, all of pure Athenian mould,
All of perfect die and metal, all the fairest of the fair,
All of workmanship unequalled, proved and valued everywhere,
In demand amongst the Hellenes and Barbarians far away;
These we use not. But the worthless pinchbeck coins of yesterday,
Vilest die and basest metal, now we always use instead.

Even so, our sterling townsmen, nobly born and nobly bred,
Men of worth and rank and mettle, men of honourable fame,
Trained in every liberal science, choral dance and manly game,
These we treat with scorn and insult. But the strangers newliest come,
Worthless sons of worthless fathers, pinchbeck townsmen, coppery scum
(Whom in earliest days the city hardly would have stooped to use
Even for her scapegoat victims), these for every task we choose².

That was spoken at the Lenaeon festival early in 405 B.C.; on the first of September of the same year, the Athenian naval power was wiped out at Aegospotami. It seemed the end. Yet, in fact, it proved only the end of Athenian political leadership in Greece; cultural and intellectual leadership was to continue, and the economic affairs of Athens needed little more than a decade of peace and reconstruction before she once again became the principal money market of Greece.

¹ E. T. Newell, *Coinages of Demetrius Poliorcetes*, p. 133, note 4.

² *The Frogs of Aristophanes*, lines 717 to 733, trans. B. B. Rogers (with slight variations).

CHAPTER IX

COINAGE IN THE NORTH AND EAST

A. MACEDON

WHEN the Persians in 479 B.C. relinquished their European possessions, the Macedonian king, **Alexander I**, began a coinage the types of which were suggested by those of the vigorous pieces of the Orrheskioi and Edonians [Pl. VII, 2, 3]¹, whose rich silver mines he wrested from them about that time. Their monetary standard, which they seem to have owed to Abdera, was likewise taken over by the Macedonian, who issued large pieces, which may be called either Paeonian hexadrachms or Abderite octadrachms [Pl. XXVII, 13], as well as tetradrachms and smaller currency [Pl. XXVII, 12]. A horseman in Macedonian or Thessalian cap and cloak, riding upon, or standing beside, his horse is on the obverse; a quartered square with the king's name written round it, on the reverse. In the latter part of the reign this reverse gave place to one showing the head and neck, or the forepart, of a goat.

Perdiccas II, who succeeded in 454 B.C., carried on the last type, but caused his name to appear upon the smaller denominations only of the coinage. His successor **Archelaus I** (413-399 B.C.) introduced a different standard, the Persian. The collapse of the Athenian Empire implied a great increase of the Persian influence, and the daric and shekel for a time proceeded to supplant, in parts of Macedon and Thrace, the Attic tetradrachm. Since the days of Darius I the shekel had fallen slightly in weight, scaling about 5.4 grammes, and Archelaos coined staters of about 10.6 grammes, which doubtless passed as equivalent to two Persian shekels. Some of his money repeated the types of his predecessors; but a second issue introduced fresh badges, the head of a youthful god, and a horse trailing a loose halter [Pl. XXVII, 14]. The god, who wears a taenia round his head, is probably Ares, who was more at home in Thessaly, Macedonia, and Thrace than farther south.

The Greek cities of Macedonia, as members of the Athenian Empire, were subject to varying fortunes. Some of them were

¹ See p. 66.

probably denied rights of coinage; but three, Scione, Mende, and Acanthus, were allowed to mint on the Attic standard until the expedition of the Lacedaemonian Brasidas in 424 B.C. carried the war between Athens and Sparta into Chalcidice.

Soon after 479 B.C. **Scione** issued some tetradrachms with the head of the city's legendary founder Protesilaos; his name is inscribed upon the crest of his helmet, while the stern of a galley and the letters **ΞΚΙΟ** are upon the reverse [Pl. **xxvii**, 15]¹. The same hero's head, or his helmet, and a large eye, perhaps intended for the eye so often painted upon the prow of a galley, appears on the fractional currency, some of which may be as late as 424 B.C., the year in which the city revolted from Athens. Two years later the city fell and Plataeans were settled there by the Athenians.

Mende continued the issue of tetradrachms with the Dionysiac ass for blazon² down to about 450 B.C. [Pl. **xxviii**, 1], after which date a large number of four-drachm pieces were struck with the obverse type of Dionysus riding, or rather reclining, upon the back of an ass, while in the field, there frequently appears a crow, a little dog, or Seilenus carrying a wineskin. The reverse type is usually a vine [Pl. **xxviii**, 2, 3]³. These tetradrachms, it has been suggested, are the work of two engravers; the older, a local man, inventor, it may be, of the type, but unskilled and clumsy [Pl. **xxviii**, 2]; the younger imported; if not an Athenian, then certainly trained in the best Attic tradition and capable of producing some of the most delightful coins ever struck [Pl. **xxviii**, 3, 4]. The modelling of the head of the god, sometimes three-quarter face, and of that of the ass is brilliant. Like Scione, Mende revolted in 423 B.C. and was retaken by Nikias. Though her fate was lighter, she was allowed no further rights of coinage until she was freed by the downfall of Athens at the end of the century, when she apparently expressed her Peloponnesian sympathies by the issue of some didrachms of Pheidonian weight (12.3 grammes). These have a beardless head of Dionysus, ivy-wreathed, upon one side, and the ass, with a crow on his rump, upon the other [Pl. **xxviii**, 6].

¹ *N.C.* 1926, p. 120 ff. A recent attempt to question this coin's authenticity is not to be taken seriously.

² For the earliest coins see p. 67.

³ S. P. Noe, *N.N.M.* No. 27.

The issue of tetradrachms of Attic weight, which had begun during the latter part of the sixth century in **Acanthus**,¹ was continued into the fifth; and the type, a lion on the back of a bull, was retained. On the reverse, the name of the Acanthians was sometimes placed around the sides of a quartered square [Pl. **xxviii**, 5]. The Athenians, however, lost Acanthus in 424 B.C. to Brasidas, and never recovered it, as they did recover Scione and Mende. The Acanthians, enjoying freedom, retained their blazon but deliberately abandoned the Attic for the Thracian Abderite standard, a procedure that brought them into line with their neighbours at Amphipolis², the Athenian colony which gained its independence at about the same time.

B. THRACE

There were four Greek states in Thrace whose prosperity and political influence was reflected in their coins; these were Thasos, Abdera, Maroneia, and Aenus. It will be best to give first some account of their monetary standards, which illustrate their relations with Athens, and then to consider briefly their types.

The coinage of Paeonian standard, which the Thasians had begun to mint in the sixth century³, came to an end when the island revolted from the Delian Confederacy and was subjugated by Athens in 465 B.C.; and then, probably after an interval, they were allowed to resume minting, but conformity with the Attic standard was demanded. Aenus began her coinage on this same monetary system, for she was one of the earliest and most faithful members of the confederacy, having been under Persian domination until 478 B.C., in which year she welcomed the liberation which the Athenian navy secured for her. Her wealth is evidenced by the records in the tribute lists, which assessed the city at 12 talents in 454-449, and at 10 talents in 445-439 B.C.⁴

The metrological history of the other two states, Abdera and Maroneia, is instructive for the monetary policy of Athens. On their liberation from Persia in 478 B.C. they resumed the old Paeonian or Thracian-Abderite standard; but about 449 B.C., probably, the decree of Klearchos⁵ was passed by the Athenians, prohibiting their subjects from minting silver on any standard

¹ p. 68.

² p. 115.

³ p. 66.

⁴ M. L. Strack, *Antike Münz. N. Griechenl.* ii, p. 132.

⁵ The account of this decree is given on p. 111 f. above.

other than the Attic. Abdera and Maroneia, finding that their tetradrachms of about 14 grammes in no way conformed to this requisite, were faced with the alternative of raising or lowering their system. To raise their tetradrachms to 17 grammes would have implied the demonetisation of all their previous issues, and they found a better method, by which they allowed their standard to fall from 14 first to 13.50, then to 12.75 grammes; and, by the time the last weight was employed, the Abderite or Maroneian tetradrachm automatically became an Attic tridrachm¹.

The decree of 415 B.C. forbidding all subjects to coin silver put an end to the money of all these four Thracian cities: however in 411 B.C. they all revolted and resumed their autonomous issues, Thasos and Aenus employing the Chian, the other two cities, after a short interval, the Persian weight-systems. For the last years, perhaps, of the war against Athens they all four, faced with the necessity of raising emergency funds to aid the Spartans, struck small gold coins [Pl. **xxix**, 5], on the standard of the Persian daric, a coin with which the Lacedaemonians had become only too familiar. Amphipolis, hostile as ever to her mother-city, threw in her lot with the others, and likewise produced an emergency issue of gold, with the head of the youthful Ares [Pl. **xxviii**, 9] like that upon the contemporary Persian staters of King Archelaus I of Macedon [Pl. **xxvii**, 14].

Abdera, during the fifth century B.C., produced one of the most varied and interesting series of coin-types in history. As in Cyzicus and several other eastern Greek cities, a fresh monetary magistrate was appointed every year and placed a blazon upon the coins for which he was responsible. At first this badge appeared as a small symbol on the obverse beside the griffin-blazon which Abdera had inherited from Teos²; and an official's name, frequently preceded by ΕΠΙ (i.e. 'in the time of,' 'under') was inscribed around a quartered square on the reverse, so that a tetradrachm inscribed ΑΒΔΗΡΙΤΕΩΝ ΕΠΙ ΝΥΜΦΟΔΩΡΟ would read "(a coin) of the Abderites (struck) under Nymphodoros" [Pl. **xxviii**, 8]. It was not long before the official's badge was transferred to the reverse, taking the place of the

¹ A. B. West, *N.N.M.* No. 40, p. 90. The weight sometimes fell a little below 12.75 g. For small change most of the cities of the northern Aegean seaboard issued coins of about 2.8 g. which might be reckoned either as Attic tetrobols or Persian half-shekels. *Op. cit.* p. 99.

² See p. 64.

quartered square and thus being circumscribed by his name [Pl. **xxviii**, 7, 10 to 13]. There is a considerable degree of probability in the suggestion that the person thus recorded on the coins was the annual priest of Apollo¹, chief deity of Abdera; and the priest might thus be a kind of eponymous magistrate, by whose year of office it was customary to date events². In support of this contention it is to be noted that on two occasions the priest apparently died in office and coins had to be issued under the magistracy of the god himself. On each occasion the god employed his own cult statue as blazon, accompanied, once by the legend **ΕΠΙ ΚΑΛΛΙΑΝΑΚΤΟΣ** (under the Good Lord) [Pl. **xxviii**, 10], and once **ΕΠΙ ΑΠΟΛΛΩΝΟΣ** (under Apollo)³. In the fourth century, the god's head was the invariable type on the reverse of the coinage, private magisterial blazons, but not names, having been dropped.

The annual priest would certainly be a member of some prominent Abderite family, and perhaps a young man whose youthfulness should correspond to that of the deity himself. It is tempting to suppose that the office may have been filled by young citizens, who attained some fame in later life. The name of Nymphodorus appears on coins of about 450 B.C., and a Nymphodorus was the most influential man in the city about 431 B.C. as we learn from Thucydides⁴. Nor are we without links with the celebrated school of philosophy of which Democritus of Abdera, the Atomist, was the leading light. His birth is usually placed about 460 B.C., his name appears on a coin which was issued at a time when he might have been priest of Apollo between the ages of twenty and thirty; while it may be a mere coincidence that the device accompanying the name is a lyre and that he is said to have written books on music⁵. Democritus,

¹ M. L. Strack, *op. cit.* p. 6. In support of this, note that the priest of Helios in Rhodes was chosen for a year's office and was the eponymous official by whose name the city dated. Hiller v. Gaertringen in *R.E. Suppl.* v, 769.

² At Argos dating was by the priestess of Hera, at Athens by the first Archon.

³ From 266 to 263 B.C. Apollo acted as eponymous magistrate at Miletus (*C.A.H.* vii, p. 709). Perhaps there and on the two occasions mentioned in Abdera no one could be found to afford the office. With *καλλιόναξ* compare *Ἰὼ καλλιθέσσα*; A. B. Cook, *Zeus*, i, p. 453 f.

⁴ ii, 29. Other Abderite names mentioned in history which happen to appear in full or abridged upon the coins are Pro(tagoras?), Artemon, Hecataeus and Python, as well as Herodotus (a brother of Democritus).

⁵ Diog. Laert. ix, 48.

too, was a great admirer of Pythagoras¹, owing something of his own system to the Pythagorean teaching; and, philosophy being the fashion in Abdera, it is not surprising to find that one, who may have been a younger contemporary and friend of the famous Atomist, and who bore the name, Pythagoras, should adopt as badge, for his year of office, an idealised portrait of his famous namesake. In no other way can we account for the remarkable coin² which bears the fine bust of a bearded man and the name ΠΥΘΑΓΟΡΗΣ around it [Pl. xxviii, 11]. In an Apolline cult it was fitting that Pythagoras' memory should receive a meed of honour from the one god whom he was himself willing to worship. This tetradrachm is a monument of the first importance for the history of sculpture; it can be dated on metrological grounds to before 432 B.C., and it is the only *original* surviving named portrait of the fifth century before our era³. The die-engraver probably copied the head of a statue preserved in Abdera; but whether the resultant coin-portrait, made some sixty years after Pythagoras' death, gives anything like a faithful record of his features is a question which cannot be answered.

Some magistrates adopted blazons which were "canting types." Thus Python had the tripod of Pythian Apollo [Pl. xxviii, 12]; Nikostratos, a soldier charging to victory; Euagon, a prize-amphora; Molpagores, a dancing-girl executing a dance, *Molpē* [Pl. xxviii, 13]. The majority, however, appear to have been more or less arbitrarily selected.

There is less variety in the coinage of the neighbouring city of **Maroneia** with its constant types of a prancing horse and a little vine resembling that on the coins of Mende. The badge of a magistrate—probably annual—generally figures over the horse's back, and the magistrate's name, often preceded by ΕΠΙ, is circumscribed round the vine [Pl. xxix, 1, 2]. Towards the end of the century certain native princes of Thrace, Amadocus and Teres, caused bronze coins with Maroneian reverse types to be struck for them, probably in the mint of that city⁴.

The island of **Thasos** resumed, probably about 455 B.C., the issue of her satyr and nymph coins [Pl. xxix, 3], which now had

¹ Diog. Laert. ix, 38.

² In the R. Jameson Collection.

³ Roman copies of fifth-century portraits are conveniently assembled by F. Winter, *Kunstgeschichte in Bildern*, Pl. 251. The contemporary fifth-century portrait on the Dexamenos gem in Boston is of an unknown man.

⁴ *C.A.H. Plates*, iii, 18 d, e.

the weight of Attic didrachms. The rough struggle on the earlier coins [Pl. VI, 15] has been toned down to the more polite abduction of a not unwilling nymph¹, and the execution of these coins betrays, like that of the finer tetradrachms of Mende, the direct influence of Attic art. When Thasos revolted in 411 B.C., she adopted new types along with the convenient Chian standard, to which her new allies, the Spartans, were accustomed. Tetradrachms, a few didrachms, and drachms were issued, with a dignified head of the bearded Dionysus, ivy-crowned, on the obverse; and, on the other side, the archer Heracles, clad in a lion-skin, kneeling, shooting [Pl. XXIX, 4]. The latter was the blazon of the city, for a sculptured relief, exactly resembling the coin-type, which once adorned one of the city-gates of Thasos, is preserved².

Aenus, the easternmost of the four states under discussion, issued, during the ripe archaic and early classical periods of art, tetradrachms, which are not surpassed by those of any Greek city. A head of Hermes wearing a close-fitting *petasos*, or felt cap with a button on top, was the regular obverse type, and, while the first issue displayed on the reverse no more than the god's caduceus and the city's name [Pl. XXIX, 6], all subsequent pieces had as types a he-goat with long, curved horns and shaggy beard [Pl. XXIX, 7 to 11]. The small subsidiary badge of a magistrate appears in front of the animal. Noteworthy among these small symbols is one which shows the cult image of the city as a bearded, wooden Herm upon a throne, to the back of which a wreath is attached while a tiny caduceus stands in front of the Herm [Pl. XXIX, 8]. The heads of Hermes [Pl. LXIV, 2] call for comparison with some of the finest works of Greek sculpture; the earliest, with the archaic work produced in Athens in the years immediately preceding the Persian invasion; those of the middle period [Pl. XXIX, 9], with the calm reserve of the sculptures of the Olympian Zeus temple; and some, struck before 415 B.C., with the charm of the Parthenon frieze [Pl. XXIX, 10].

After 411 B.C., when Aenus, like Thasos, adopted the Chian standard, the obverse type was changed to a facing head of

¹ Compare the same toning down in Attic art. Ripe Archaic, the Brygos painter, *ca.* 490 B.C., and early classical art, the Sotades painter, *ca.* 460 B.C. J. D. Beazley, *Vases in Poland*, Pl. 10; Pl. 16; both Satyrs and Maenads, but what a contrast!

² For the literature on this subject see A. B. West, *loc. cit.* p. 17.

Hermes [Pl. **xxix**, 11], a type doubtless suggested by the facing Apollo of Amphipolis, and in style strongly influenced by the facing Arethusa of the Syracusan Kimon¹.

C. ASIA MINOR

The most important money of the Asiatic Greeks during the fifth century was of electrum, a coinage which has already been discussed in the section on the Athenian Empire².

Three Ionian states and three of Dorian descent, Chios, Samos, Ephesus, Rhodes, Cos, and Cnidus, however, were silver-using communities and require some consideration. Now the only way in which the issues of these cities can be arranged and comprehended is by bearing in mind the essential facts about the monetary policy of Athens: firstly that about 449 B.C. the decree of Klearchos prohibited the use of silver minted on any standard other than the Attic, secondly that about 415 B.C. the second decree forbidding the minting of silver altogether was promulgated—and enforced. Next it must be remembered that most of the Athenian subjects revolted in 412 and 411 B.C. and naturally signalled their independence by the issue of coins. Unless these facts are borne in mind, inevitable confusion must result³. Of all the Athenians' subject allies Chios proved to be the most restive, Samos the most loyal, and their numismatic history well illustrates their divergent attitudes. **Chios** had always issued, without serious interruption, her dumpy didrachms of Chian weight⁴, of about 7·8 grammes, with the type of a seated sphinx, a wine-amphora, over which is a bunch of grapes, standing in front. The rough, early-looking, quartered reverse-square was retained and made the pieces deceptively archaic in appearance; but careful observation of the sphinx's fine head proves that some of these didrachms were struck in the third quarter of the fifth century [Pl. **xxix**, 12]. The first decree failed to end but perhaps curtailed these coins. If the Chians must use an Attic standard, they would have no coins at all. Yet, when she revolted in 412 B.C., Chios promptly began to mint again; only, instead of didrachms, tetradrachms [Pl.

¹ H. von Fritze, *Nom.* iv, p. 23 ff.

² p. 112 f. above.

³ As it has resulted in former attempts to classify the coins of Chios, Samos, and Cnidus.

⁴ The earlier coins are described on p. 31.

XXIX, 13] and drachms were issued; first without symbols, then for a short time with small badges beside the sphinx, and presently with the magistrates' names inscribed on bands across the otherwise typeless reverses¹. The standard, of course, was Chian, revived [Pl. **XXX**, 1].

Samos, by contrast, showed a loyal readiness to fall in with Athenian policy. From the date of the formation of the Delian Confederacy down to 415 B.C. she was striking coins of about 13 grammes. Locally these might be tetradrachms, but since they were equivalent to three Attic drachms, they clearly satisfied the requirements of a decree which enforced Athenian weights and measures² about 449 B.C. The types of these coins were a lion's scalp on the obverse, and a bull's head or the forepart of a bull (in one case with the prow of a Samian galley beside it) on the reverse [Pl. **XIV**, 1; **XXX**, 2]. It was perhaps during the seventeen years between 432 and 415 that the olive twig, a symbol of Athens, appeared behind the bull's *protome*, and this same olive-twig series was marked with a string of consecutive letters [Pl. **XXX**, 3], fourteen at least, which possibly represent dates³.

When all the other subjects revolted in 412 B.C., the Athenians took exceptional measures to secure the loyalty of Samos⁴ and restored its autonomy to it. This was the occasion on which there were issued tetradrachms and drachms exactly like those which had ceased in 415 B.C., but, since the former weighed 16.87 grammes, they were of the Attic standard. Moreover in 411 B.C. an actual Athenian issue seems to have taken place on the island; for, when the oligarchy of the "Four Hundred" gained control in Athens itself, the fleet at Samos set itself up to be the People of Athens, and perhaps coined in Samos the tetradrachm with Athenian types which has, in front of the owl, a little Samian bull's head [Pl. **XXX**, 4]. The coin so closely resembles

¹ A. Baldwin Brett, *A.J.N.* 1914, p. 46, is certainly right in making them continuous though she dates them too early. The sphinx may be compared with the archer Heracles on the Thasian coins which cannot antedate 411 B.C.

² The metrological relief from Samos in the Ashmolean Museum dated by A. Michaelis to about or before 439 B.C. (*J.H.S.* 1883, p. 349 f.) does *not* prove that the enforcement of weights and measures by Athens "was fixed at least as early as 439 B.C." (P. Gardner, *Hist. of Anc. Coinage*, p. 249). For (i) Michaelis' date is merely approximate; (ii) Michaelis suggests that the Attic foot, which appears beside the Samian fathom on the relief, was a *later* addition cut into the relief at the time when Athens did enforce her measures.

³ But see p. 118 footnote 2.

⁴ *C.A.H.* v, p. 315 f.

the Athenian gold of 407 to 406 B.C. that it must belong at least to the same decade, and the Samian naval episode is the sole event with which it can be associated. During the last few years of the century, Samos, like her neighbours, adopted the Chian weight-system [Pl. **xxx**, 5].

The coins of **Ephesus**, struck between about 478 and 469 B.C., are few in number and represent a survival of the old Milesian standard in a somewhat reduced form, with a tetradrachm of about 13.20 grammes; the type, a bee. After that the city would appear to have issued no coined money until she gained her liberty in the general revolt of 411 B.C. Immediately coinage revived, with the bee on the obverse, and on the other side a magistrate's name inscribed upon a band as at Chios [Pl. **xxx**, 6]; the standard also Chian.

Of the three Dorian states it was **Cnidus** which issued the most attractive money produced during the fifth century by the Asiatic Greeks. The types, *protome* of a lion and head of Aphrodite, had been adopted in the sixth century [Pl. **xxx**, 9], and the heads often admit of comparison with the heads of Arethusa-Artemis at Syracuse; while their apparent continuity suggests that the coinage was not interfered with by the Persians between 546 and 479 B.C. nor by the Athenians between 478 and 432 B.C. The drachms issued during the latter period are very well struck and their reverses are decorated with little heads of Aphrodite, which have all the charm and grace of ripe archaic and early classical art [Pl. **xxx**, 10, 11, 12]. One of the last coins issued may best be compared with certain Syracusan pieces which can be dated between 439 and 435 B.C.¹ Since the mother-city of Cnidus had been Argos it was natural that she should employ the Pheidonian standard for her drachms; and resenting, as Chios did, the decree of Klearchos enforcing the Attic weight-system, she ceased to coin before 432 B.C. Like Chios and Ephesus, she began again to issue money in 411 B.C., now on the Chian standard and with magistrates' names added to the old types.

The case of **Cos** was not very different, although that island adopted the Attic standard in the first half of the fifth century. Its civic badge, the crab, occupied the reverse of its coins, which

¹ Compare Cnidus, *B.M.C. Caria*, Pl. xiv, 5 with E. Boehringer, *Syrakus*, Pl. 27, 712, 723.

showed upon the obverse the figure of an athlete in the act of hurling a discus, and beside him there always appeared a prize tripod [Pl. **xxx**, 7]. Doubtless there is here a reference to the Games held on the mainland opposite Cos in honour of the local Dorian Triopian Apollo. Herodotus¹ informs us that the first prize at these games was a bronze tripod, which it was customary for the victor to dedicate to the god. None of the extant coins of this type seem to be later than 432 B.C. However, the revolt of 411 B.C. was signalised at Cos, as elsewhere, by a revived coinage on the Chian standard, the head of a bearded Heracles appearing on the obverse, and on the reverse, beside the crab, a club and a magistrate's name.

In the island of **Rhodes** matters were more complicated, for its three cities employed two different weight-systems up to 449 B.C., when they had to abandon coinage since neither of the systems was Attic. **Camirus**, with its fig-leaf device, employed the Pheidonian unit, which it, like Cnidus, had acquired in the seventh or sixth century². **Ialysus** and **Lindus** employed a variant of the old Milesian standard, which by a process of assimilation had come to correspond to the Thracian standard of Macedon, Abdera, and Maroneia. **Lindus** had as its type a lion's head with open jaws and hairy tuft on the forehead; **Ialysus**, the forepart of a winged boar for the obverse, the head of an eagle for the reverse of its coins [Pl. **xxx**, 8].

The money, the issue of which resulted from the liberation of the island in 411 B.C., appeared under strange circumstances, for it will be remembered that the three big cities decided on a voluntary amalgamation. Abandoning their old sites, they combined to found the new city of Rhodes at the northern end of the island in 408 B.C. Now although, as allies of Sparta, the Rhodians were at this time technically at war with Athens, their admiration for Athens, its ports, its city-plan, its constitution and administration was so unbounded that the new city was organised as far as possible upon an Athenian model³.

It is only this wholesale adoption of Athenian methods which can explain the fact that, while every other Greek-Asiatic city was signalling its revolt from the League by issuing money of Chian weight, Rhodes should inaugurate a brand-new Rhodian

¹ i, 144.

² See p. 41.

³ Hiller von Gaertringen in *R.E.* Suppl. v, 764, 50 ff.

coinage on the Attic weight-system [Pl. **xxx**, 14]. Barely two years can have elapsed before the Rhodians realised that they had made a metrological and commercial error in this particular, and they quickly dropped the Attic system and picked up the Chian [Pl. **xxx**, 15]. For obverse type the Rhodians selected the head of Helios represented as it were "in his noonday glory, with rounded face and ample locks of hair blown back as if by a strong wind¹." Amphipolis, Catana, Syracuse, Aenus had already produced coins with facing heads, and if they achieved more robust vigour, more delicacy in their types, the Rhodians at least infused a certain attractive originality into the first of their facing-head coins [Pl. **xxx**, 13 to 15]. The rose, which became the regular reverse type of these coins, was a canting-type, the selection of which was obvious. Over it there usually appeared the legend **ΡΟΔΙΟΝ**, and a magistrate's small badge was placed beside the rose.

From the foregoing review of the fifth-century coinage of the chief cities of Macedon, Thrace, Ionia, and Caria it is now possible to obtain a clear picture of the monetary relations existing between Athens and her subject-allies, and to summarise the result in word and diagram [Fig. 8, and Map, p. 175].

(i) The decree of Klearchos, *ca.* 449 B.C., did not affect Acanthus, Mende, Scione, Thasos, Aenus, and Samos, since all six cities were coining pieces which were in conformity with the Attic standard. But it forced Abdera and Maroneia to change from Thracian to Attic, while it drove Chios, Cnidus, Cos, Camirus, Ialysus, and Lindus to abandon the minting of money².

(ii) The expedition of Brasidas to the north in 424 B.C. marked the end of the coinage of Mende and Scione, while Amphipolis, Olynthus as head of the Chalcidian League, and Acanthus, all being lost to Athens for good, proceeded to issue coins on the Thracian standard.

(iii) This left only Thasos, Aenus, Abdera, Maroneia, and Samos as issuers of autonomous coins, though there was always the possibility that other subjects might begin an issue of silver anew. But the second monetary decree of 415 B.C. put an end to the coinage of the five states and precluded further issues elsewhere. For four or five years Athenian "owls" were the sole silver legal tender in the empire.

¹ B. V. Head, *B.M.C. Caria*, p. ciii.

² The changes occurred gradually.

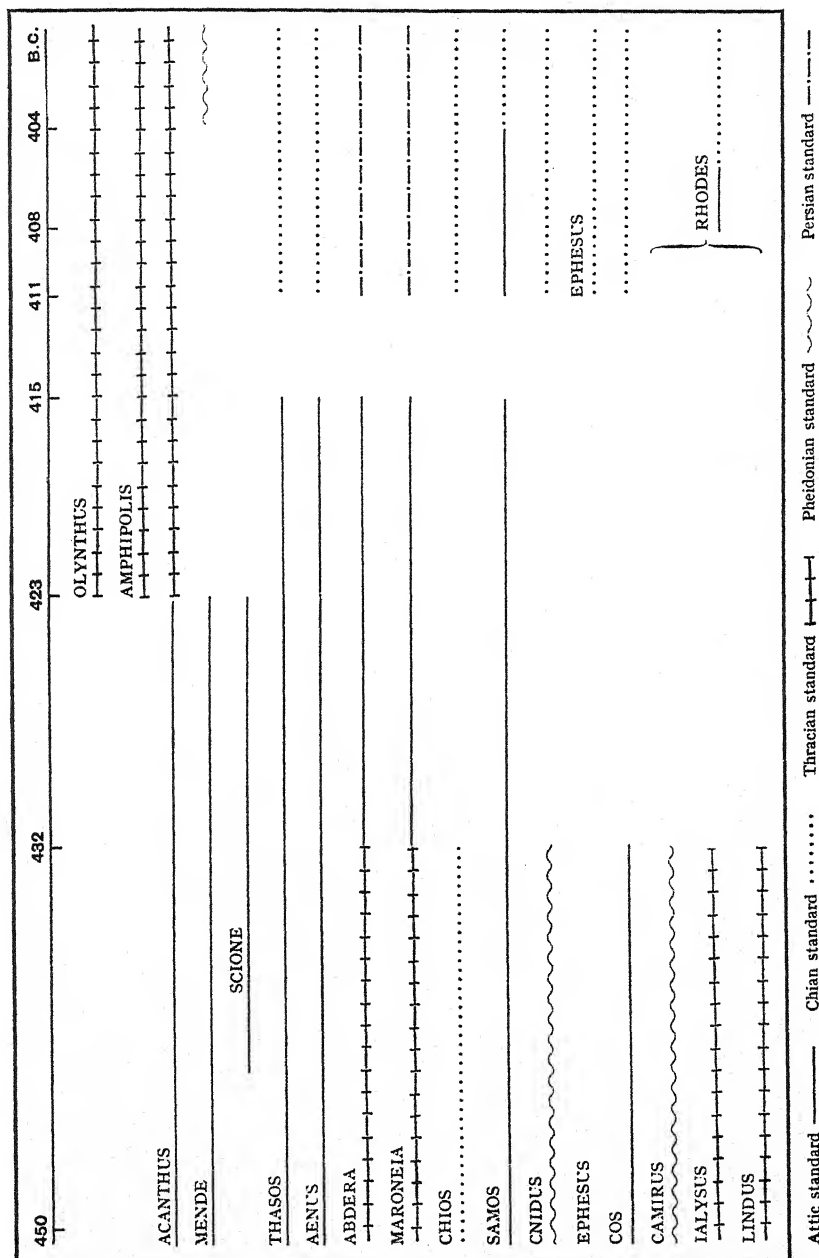


Fig. 8. Coinages of certain states in the Athenian Empire.

(iv) The wholesale defection of the subject-allies in 411 B.C. was marked by an outburst of coinage on the Chian standard deliberately selected as a rival to the Attic. Thasos, Aenus, Chios, Cnidus, Ephesus, and Cos all employed this, and, after a short interval, Samos and Rhodes likewise.

(v) Abdera and Maroneia, however, preferred the Persian, which linked them conveniently to the economics of the Propontic region. Mende, apparently in a brief bout of Philolaconian enthusiasm, adopted the Pheidonian standard which must have been unpractical in the Chalcidice.

Thus was the rivalry of Attic and Chian weight-systems set on foot; and even after the recovery of Athens, even after the adoption of the Attic standard by Alexander, that rivalry was to last far into the Hellenistic age.

D. LYCIA AND CYPRUS

Two large groups of coins must now be considered, which are essentially Greek in type and appearance, but are distinguished by inscriptions in other than the normal Greek alphabet—the coins of Lycia and of Cyprus.

Local dynasts of **Lycia** had the right of issuing coins under the Persian Empire, and among them was a certain Kubernis son of Kossikas, whom Herodotus mentions¹ as admiral commanding the Lycian contingent of fifty ships that took part in the expedition of Xerxes to Greece. His coins are staters with the forepart of a boar² as type, the reverse being nothing more than a rude incuse square with intersecting lines. On the boar's shoulder are the dynast's initial **KVB** [Pl. **XXXI**, 1]. The standard of these pieces, about 9.44 g. for a stater or didrachm, is the same as that employed for some of the early Thraco-Macedonian issues. This standard in Lycia seems to have been subject to a gradual decline all through the fifth century, owing probably to the fact that Lycia was self-contained, self-supporting and wealthy³, and had therefore comparatively little contact with the outside world.

¹ vii, 98.

² Πέρναι Λύκται, 'Lycian hams' were well known, at least in later times; Athenaeus, 657 E.

³ The splendid tombs and monuments of wealthy Lycians betoken their opulence.

Another dynast of whom we know something was a certain Khārāi, son of Harpagus, an ally about 412 B.C. of the Persian satrap Tissaphernes; Khārāi, whose stele with a long historical inscription, partially bilingual, survives¹. He and his brother (or cousin), Khārīga, issued coins in the cities of Xanthus and Antiphellus, which have generally as their obverse type a head of Athena copied from the coinage of Athens. The reverses of Khārāi's pieces have an oriental male head, a satrap [Pl. **xxx**i, 2]; or a splendid personage with beard and back-hair oiled and curled like an Assyrian monarch, his Persian head-dress crowned, Greek-wise, with a wreath of laurel [Pl. **xxx**i, 3]. The suggestion that this is the dynast himself may not be amiss².

The most usual reverse type for Lycian coins is a swastika-like symbol, a triskeles or tetraskeles, the ends sometimes terminating in the heads of birds [Pl. **xxx**i, 4]. Animals and monsters are the commonest obverse types [Pl. **xxx**i, 4, 5], but heads of the most subtle archaic charm are found, like those of the goddess on coins of the dynasts Tātthiväibi and Sp̄ṇḍaza ca. 470 to 460 B.C. [Pl. **xxx**i, 6]. Here in Lycia they seem to have adopted the best elements of both Greek and Persian art; for they retained the simplicity and power of the ripe archaic Greek, and preserved it from decay by the infusion of that full-blooded dignity of design which was natural to the Iranian.

A similar charm is visible in the fifth-century coins of **Side**, the chief city in the Pamphylian region, with its types of pomegranate and head of Athena [Pl. **xxx**i, 7, 8];³ and farther east still, in many of the coins of the island of **Cyprus**.

In this island, from the bronze age onwards, an intermingling of various art traditions had existed: it persisted into classical times, and is clearly visible on the coins. Egyptian is the *ankh* on coins of Citium, Paphos, and Salamis, as well as the lotus at Idalium, and the winged disk and hawk⁴ upon the money of Stasandros, king of Paphos [Pl. **vi**, 9; **xxx**i, 9, 10, 11, 12, 14]. Assyrian or Iranian in type are some of the lions of Citium [Pl. **xxx**i, 9, 13], seated, or attacking stags. But the sphinxes of Idalium, the fine archaic Athenas of Lapethus, and the heads of Apollo Hylates on the coins of Marium are Ionian Greek

¹ A good account is in *R.E.* xiii, 2273, 2285.

² E. Babelon, *Traité*, ii, p. 267, no. 344.

³ cf. my *Hoard from Sicé*, *N.N.M.* No. 22.

⁴ *B.M.C. Cyprus*, p. lxx, footnote 2; a harrier-hawk.

[Pl. **xxxI**, 14, 15, 16]. Inscriptions are in Phoenician at Citium and Lapethus; and elsewhere in Greek, but not in the Greek alphabet; for the Greeks of Cyprus preferred to adhere to the clumsy old Cypriote syllabary¹. The employment of this resulted in the title "King of Marium, Stasioikos," βασιλεὺς Μαρικῆς Στασιόικος, appearing as *Pa-si-le-wo-se Ma-ri-e-u-se Sa-ta-si-wo-i-ko-se*. The rulers of Citium were Baalmelek I, Azbaal, Baalmelek II, and Baalram; of Idalium, Gras and Stasikypros; of Salamis, Gorgos, Euanthes, Abdemon and Euagoras I; all during the fifth century B.C.

Since the Cypriotes were nearer than any of the other Greeks to Persia, it is not surprising to find that they regularly employed the Persian standard, the correct weight for a Cypriote stater, about 11 g. with a slight downward tendency, being equivalent to that of two Persian shekels. Towards the end of the century the Salaminian king, Euagoras I, issued some gold coins, apparently equivalent in weight to Persian quarter-darics², as well as eighths and sixteenths.

E. PHILISTIA

However much the Persian standard might hold its own in Cyprus, however the weight-system of Athens might be threatened with temporary eclipse by that of Chios, there was one remote part of the Mediterranean where the Attic standard flourished almost unchallenged. In the south-eastern corner of the sea at **Gaza** of the Philistines and among the northern Arabs there were in circulation tetradrachms and drachms copied, often with much success, from Athenian and other prototypes [Pl. **xxxII**, 2, 3], but having Phoenician letters in the field. Other types, some borrowed, some original, are found on these issues; but the most remarkable of them all is a silver drachm in the British Museum with a bearded, helmeted head upon the obverse, and, on the other side, a bearded divinity holding a hawk and seated upon a winged wheel, and beside him in a Semitic script, is "YHD" or "YHW." It is Yahweh, the god of Israel, who is here represented [Pl. **xxxII**, 1]³.

¹ See the table *loc. cit.* p. cxxxvi and *H.N.* Table III at end.

² A. B. West, *N.N.M.* No. 40, p. 159.

³ For the extensive literature dealing with this coin, see *B.M.C. Palestine*, p. lxxxvi. But see also note on p. 155.

Now it must not be thought that this coin indicates the presence of an actual cult of Yahweh in Gaza; for the series of coins to which the piece belongs, besides imitating various Greek badges, draws inspiration for its types from subjects that should prove attractive to Syrians, Arabs, and Egyptians, as well as to Jews. Indeed, the Philistine die-engraver may have derived his idea of a god on winged wheel from fifth-century Athenian pictures of Triptolemos, such as he might see on imported vases. But the type is none the less singularly appropriate as an illustration of Hebrew poetic concepts such as occur in various Psalms, notably civ, 3: "Who maketh the clouds his chariot, who walketh upon the wings of the wind"; or, better still, in the Vision of Ezekiel with its wings and wheels.

NOTE. An important paper has been written by E. S. G. Robinson, "The Athenian Currency Decree and the Coinages of the Allies" (*Hesperia*, Supplement VIII, 1949, p. 324 ff.). Another copy of the decree (see p. 111 f. above) has been discovered, and it now appears that the decree was first promulgated about 449 B.C. Suitable corrections have therefore been made in Chapters VII and IX. This fresh dating does not invalidate the Table on page 151. The Tables given by Robinson are of great interest and add useful information to mine. They are, however, less concerned with the standards employed than with continuity and interruption of coinages of the various Allies. He points out that it was not easy for the Athenians to enforce their currency decree. His fifteen-year periods cause an awkward situation at the period 420-405 B.C., for this "bracket-date" masks the break occurring between 415 and 411 B.C. In fact several confederate states seem to have coined from 420 to 415 B.C. and once more from 411 to 405 B.C., and, of course, later.

Fresh information about two important cities mentioned in this chapter is available in two brilliant studies: J. M. F. May, *Ainos, Its History and Coinage*; J. Desnaux, *les Tétradrachmes d' Acanthos* (see SUPPLEMENT TO SELECT BIBLIOGRAPHY, pp. xxiii ff.).

The now widely accepted reading YHD, paralleled on jar-handles and other recently discovered coins, usually debased copies of Athenian prototypes, was first proposed by E. L. Sukenik (*Journal, Palestine Oriental Society*, 1934, p. 178 ff.), and is held to suggest that the Persian authorities, known from Biblical and other sources to favour the Jews, permitted a quasi-autonomous coinage in Judah itself (cf. conveniently A. Reifenberg, *Ancient Jewish Coins*, Jerusalem 1947 pp. 5-9, and refs.). Even such an interpretation does not seem to lessen the probability that the seated figure of the reverse represents the God of the Jews. But see S. A. Cook (*Zeitschr. f.d. alttestament. Wissenschaft*, 1938, pp. 268-271), who argues against the newer view. As for the Mint where the coin was struck, no accessible visual evidence has yet appeared for an attribution to any place other than Gaza. To the Persians both Gaza, and Jerusalem in the district of "Jehud", were cities in the southernmost corner of the Trans-Euphrasian Satrapy. Undoubtedly Gaza was the more important.

CHAPTER X

THE HEGEMONY OF THEBES

THERE was a certain abrupt cleavage between the fifth century and the fourth both in Sicily and in the Aegean, brought about in the first region by the destructive Carthaginian invasion at the end of the century, in the second region by the collapse of the Athenian Empire. On the Greek mainland, however, where victory had crowned the efforts of Sparta and the Peloponnesian League, there had been no disaster to break the even flow of economic conditions, and so the coinage runs without interruption from one century into another.

A. BOEOTIA

Thebes, on account of her medizing, was under something of a cloud after the Persian wars; and Boeotia was subject to Athenian domination from 457 until 447 B.C., when the Boeotian League rose once more under Theban headship. From that date onwards her mint was active and her constant blazon the Boeotian shield until her destruction by Alexander. The reverses of her issues, however, show considerable variety. It is on one of the earliest of these that we see a representation of Thebe, labelled ΘΕΒΑ, a personification of the city¹, seated upon a chair, knees crossed, right hand on hip, holding in her left a fine helmet at which she is gazing [Pl. XXXIII, 1]; possibly her attitude and the helmet alluded to a trophy set up to commemorate the crushing defeat of the Athenians at Coronea. The other coin-types all refer to the two favourite divine personages of the Thebans, Heracles and Dionysus. The former appears either as a child strangling the serpents, or as the thief of the Delphic tripod, or, best of all, as a powerful naked athlete fitting a string to his bow [Pl. XXXIII, 2, 3]; one of the finest compositions this on any coin. Towards the end of the century heads of Heracles and Dionysus predominate, facing or in profile [Pl. XXXIII, 4, 5], and then the wine-god's amphora, plain or set in a wreath of ivy [Pl. XXXIII, 6], takes their place.

¹ cf. Pindar, *Isthm.* i, 1, *Μᾶτερ ἐμά... χρύσασσι Θήβα.*

The Spartan Empire, which had succeeded the Athenian in 405 B.C., proved the less durable of the two; and among the first states to revolt against the Lacedaemonian hegemony was Thebes, which concluded an alliance with Athens in 395 B.C. and was joined in the following year by numerous other states. It was at this time that the Thebans issued a number of coins with the type of the infant Heracles strangling the serpents [Pl. **xxxiii**, 7]; moreover, having received a sum of Persian gold to aid their opposition to Sparta, then at war with the Medes, the thrifty Thebans diluted it with silver and produced an issue of electrum, again with the infant Heracles as type [Pl. **xxxiii**, 8]. This badge obviously took on a definite anti-Spartan significance and made a sudden and surprising appearance among the Greeks of Asia.

Conon, the one Athenian admiral who escaped from Aegospotami, had found refuge at the court of the Cyprian king, Euagoras of Salamis, and employment under the Persian satrap Pharnabazus. In 394 B.C. he sailed into the Aegean in command of a Persian fleet, induced Rhodes to revolt from Sparta, and in August destroyed the Lacedaemonian fleet off Cnidus. One immediate result of this overwhelming victory was the foundation of a **Maritime League** among numerous Greek cities of Asia. Our literary authorities are one and all silent about this confederacy, the existence of which is known to us from the coins alone; but the coins record eight states—more may yet come to light—who marked their temporary union against Sparta by the issue of currency with a pro-Theban obverse type, the infant Heracles strangling serpents. Rhodes, Iasus and Cnidus, Ephesus, Samos, Byzantium and Cyzicus struck silver, the eighth, Lampsacus, gold; and all but the last bore the letters **ΣΥΝ** (for *συνμαχικὸν νόμισμα*, "alliance coin"). Each city reserved the other side of the coin for its own civic blazon; Rhodes, the rose; Iasus, Apollo's head; Cnidus, Aphrodite's; Samos, its lion's scalp; Ephesus, its bee; Byzantium, its bull; and Cyzicus, its tunny-fish and a lion's head. The Lampsacene gold piece bears the *protome* of a winged horse [Pl. **xxxii**, 4 to 10, 12]¹. Associated with these there were also Cyzicene electrum staters, with the infants Heracles and Iphicles [Pl. **xxxii**, 11] for types. Some hesitation about the standard to be adopted for

¹ C.A.H. Plates ii, 4, *h* to *p*; K. Regling, *Z. f. N.* xxv, p. 210.

this league coinage seems at first to have prevailed. Lampsacus, using gold, naturally employed the Persian daric weight; Samos, overstriking its first piece upon an old Athenian tetradrachm, seems to have made an attempt to revive the Attic standard; but she found it wise to fall into line with the other allies, all of whom employed for this coinage the now popular Chian weight and issued Chian tridrachms, pieces of a convenient denomination which might also be rated as equal to two Persian shekels¹.

Sympathy with the Theban cause seems to have been felt at this juncture in the west as well as in the east, for it is probably more than a coincidence that two western states should have selected this time for the isolated issue of infant-Heracles types. **Zacynthus**, which employed the Corcyrean system², minted tetradrachms which by chance almost corresponded in weight with Chian tridrachms; **Croton**, staters of the Italiote standard; both states employing the head of Apollo as obverse type [Pl. **xxxii**, 13, 14].

The peace of Antalcidas imposed in 387 B.C. by Sparta with Persian sanction had a marked effect upon the Boeotian coinage; for, since Thebes was deprived of the headship for a dozen years, the other cities of Boeotia could seize the opportunity for autonomous coining. As a matter of trade convenience they all used the well-known shield as their obverse type but adopted each state its own reverse. **Haliartus** showed Poseidon of Onchestus³; **Erchomenos**, a free horse; **Tanagra**, a horse's *protome*; **Plataea**, the head of Hera; **Thespieae**, that of the local Aphrodite Melainis and a crescent moon⁴ [Pl. **xxxiii**, 9, 10, 15, 11]. But from about 378 B.C. onwards affairs began to assume a different complexion, for **Thebes** recovering her influence began to reconstitute the Boeotian League, and in three or four years all the other cities were her subjects, while under the brilliant leadership of Epaminondas the Thebans became for a while the masters of Greece.

A uniform federal coinage for Boeotia was now produced from the Theban mint [Pl. **xxxiii**, 12], and magisterial responsibility for the quality of the money soon became the rule, for the eleven annual Boeotarchs of the League apparently appointed a sub-

¹ P. Gardner, *Hist. of Ancient Coinage*, p. 301 f.

² See p. 71.

³ Pausan. ix, 26, 5.

⁴ *ibid.* ix, 27, 4.

committee, from among themselves, with special charge over the mint. The members of this committee were responsible, perhaps in rotation, and their names appeared on the coins. The types were the old shield and wine-amphora; while among the names there figure those of celebrated Thebans of the day. **ΗΙΣΜΕ**, **ΑΝΔΡ**, **ΑΜΦΙ**, **ΔΑΜΟ**, **ΘΕΟΠ**, **ΨΑΡΟ**, must stand for Ismenias, Androkleidas, Amphithemis, Damokleidas, Theopompos, and Charopinos, while several other statesmen known from documents held monetary office¹. Best of all, however, it is to find the frequent occurrence of **ΕΡΑΜΙ** among the names, the great Epaminondas himself, who held the office of Boeotarch in the years 371, 370, 369, 367, and 362 B.C. [Pl. **xxxiii**, 13].

B. PHOCIS AND LOCRIIS

The coinage of Phocis consisted almost entirely of half-drachms and obols of Pheidonian weight, which began to be struck in the sixth century and were possibly issued from a federal mint situated perhaps at **Daulis**. The obverse type was always the facing head of a bull; the reverse of the half-drachms, during the sixth and fifth centuries, the head of a goddess [Pl. **xxxiv**, 1, 2, 3], in the fourth the head of Delphinian Apollo [Pl. **xxxiv**, 4]. Despite their small size some of these coins are of very high artistic merit.

The Locrians living in and around the little city of **Opus**, on the coast south-east of Thermopylae, attained no great prominence until they began to achieve a certain fame as mercenaries about 400 B.C. The return home of some of these soldiers of fortune, who may have taken part in the Sicilian wars, seems to have coincided with the rise in Locrian prosperity about 387 B.C.; and the soldiers perhaps brought with them Syracusan money, drachms, tetradrachms, and even decadrachms of Euainetos and his contemporaries. At any rate the very first coins issued in Opus, didrachms of Pheidonian weight as in Boeotia, bore badges copied from Syracusan prototypes; a head of a goddess closely resembling that on the Euainetos decadrachms, and a hero, the Locrian Ajax charging into battle [Pl. **xxxiii**, 14, 16], who is modelled on certain Syracusan drachms that have the hero Leukaspis for type [Pl. **xxiii**, 7].

¹ B. V. Head, *H.N.* p. 351 f. for the full list.

The inscription reads **OPONTION**. Drachms and half-drachms have the same types; and obols, an amphora on one side, the evening star, an object of their worship, upon the other¹.

C. THESSALY

North of Locris in the largest region of Hellas, Thessaly, the Pheidonian standard was likewise employed and the greatest number of coins were issued from the mint of **Larisa**, the highest denomination during the fifth century being the drachm. The types represented the *taurokathapsia*, or bull-throwing, a pastime which was indulged in by Thessalian cow-boys up to five centuries later in the Roman Circus, whence it was transferred to the Iberian peninsula and thence, after many centuries, to Spanish America. Under the name of "steer-wrestling" this sport is still a feature on the cattle-ranches of the Western States and Canada. We see the Thessalian mounting, or riding in pursuit of the steer, which is on the reverse of the coin [Pl. **xxxiv**, 6, 7]; more generally the cow-boy has slid from his horse's back and has grabbed the steer by the horns preparatory to throwing it on the ground, while his horse, on the other side of the coin, trots on with trailing rein [Pl. **xxxiv**, 5, 8].

About 395 B.C. these coins were superseded by a new series with an obverse type directly copied from Kimon's facing head of Arethusa. Doubtless Syracusan pieces were brought back by Thessalians who had seen mercenary service in the West; while, at the same time, other western coins from Thurii, collected probably by other Thessalian troops serving in Magna Graecia, were employed as prototypes for new coins which now appeared at Pharsalus.

The Larisan pieces were didrachms, drachms, and fractions with a facing nymph's head and, on the other side, a horse walking or grazing, or occasionally a mare and foal [Pl. **xxxiv**, 11, 10]. The facing heads are the most brilliant and successful of all the many imitations of Kimon's goddess. The drachms of **Pharsalus** have a head of Athena in a crested Attic helmet, sometimes with a fine Scylla upon it, while on the reverse is a Thessalian horseman [Pl. **xxxiv**, 9]. The last issue probably

¹ Strabo ix, 416, ἔχουσι τε ἐπὶ τῇ δημοσίᾳ σφραγίδι τὸν ἑσπερον ἀστέρα ἐγκεχαράγμενον, refers to the Ozolian Locrians. R.E. xiii, 1273.

came to an end when Jason of Pherae annexed Pharsalus in 371 B.C., though that ruler, and Alexander of Pherae, who succeeded him in 369 B.C., left Larisa in possession of her monetary rights¹. The latter ruler issued coins at **Pherae** in his own name, for he, like Jason, laid claim to the rank of *tagos* (or chieftain) of all Thessaly. His didrachm had a facing, his drachm a profile head of Hecate; the first an armed horseman and a double-axe, which was the symbol of office borne by a *tagos*, the second a lion's head as its reverse type [Pl. **xxxiv**, 15, 14].

It was apparently about 362 B.C. that the people of Larisa revolted against the political hegemony of the ruler of Pherae. On the one hand they appealed to Athens for aid, on the other they struck some drachms, asserting their own claims to the *tageia* and appealing to the past². On the obverse of these coins was a helmeted facing head of the mythical Aleuas the Red, labelled **ΑΛΕΥ**, ancestor of the Aleuad clan which dominated Larisa, the man who was said to have been the first Thessalian *tagos*, and beside his head the double-axe, symbol of the *tageia*; on the reverse the eagle of Zeus Larisaïos on a thunderbolt, and the letters **ΕΛΛΑ...**, the name of the Aleuad noble³ who was claimant for the *tageia* in rivalry with Alexander of Pherae [Pl. **xxxiv**, 12]. After this episode Larisa returned to the coins with nymph's head and horse; but the Aleuad Simos, a minion of Philip of Macedon, was made Tetrarch of Thessaly in 353 B.C. and placed his name on some coins, the issue of which ended in 344 B.C. when the country was incorporated in the Macedonian kingdom.

Up to that time many of the smaller Thessalian cities, though depending mainly on Larisa for their silver, struck finely designed and very attractive bronze coins from which there may be singled out those of **Crannon** both for the strangeness of their type and for its curious explanation. The obverse shows a

¹ F. Hermann, *Z. f. N.* xxxv, pp. 1 to 69; a summary Corpus of the coins of Larisa, which contains all the main details of this coinage.

² There can be little doubt that this Aleuad coin is to be dated 362, as by Hermann, *op. cit.* pp. 63 to 66; for Hermann has considered it in the whole series of the Larisan mint. H. T. Wade-Gery, *J.H.S.* 1924, p. 61, proposes a date before 371, but this is a guess, and the theory must collapse when note is taken of the close resemblance between the Aleuad coin and those of Simos, 353 B.C.

³ It is tempting to suggest Hellanokrates, a noble of Larisa, who as a youth had had Archelaos of Macedon for his lover, and had been a party to his assassination in 399 (Aristot. *Politica*, 1311 b). He might have been aged between 50 and 60 in 362 B.C.

horseman; and on the reverse appears a flat four-wheeled car, in the centre of which stands a large hydria between two ravens [Pl. **xxxiv**, 13]. This we learn from Antigonus of Carystus, in his *Collection of Marvels*¹, was the coat-of-arms (the *ποράσημον*) of the city, and when there occurred a great drought it was customary to agitate or drive about the vehicle whilst petitioning Zeus for rain. The water spilling over from the hydria was, of course, a primitive rain-charm.

D. PELOPONNESUS

The coinage of Peloponnesus, which has next to be examined, falls into four groups; that of Aegina, of Sicyon, of Olympia, and the spasmodic issues that appeared in consequence of the invasions of Epaminondas.

Dispossessed or oppressed minorities were used as convenient pawns to annoy more dangerous states in the fourth century B.C. as readily as in the twentieth of our era. The practice was begun by Lysander in 404 B.C., when he collected scattered remnants of the people of **Aegina** and restored them to their old homes, setting a watch-dog over Athens. But the watch-dog proved relatively harmless because he did not become a sea-dog. Only the metaphor, since it is written upon the coinage, should be set not in canine but in reptilian guise. For when the Aeginetans began to mint anew, a sea-turtle was no longer their blazon, but in its place appeared a land-tortoise, the common *testudo Graeca* of the Mediterranean [Pl. **xxxiv**, 16, 17]. The shallow incuse square of the reverse was divided just as it had been on the old coins struck before 456 B.C., and later within its divisions appeared **ΑΙΓΙ**, or small symbols, or the abbreviated names of magistrates. This tortoise-coinage never attained the same extensive circulation as the old turtle-money.

A few years after the Aeginetan turtle-coins had ceased to appear the Peloponnese, which depended upon Aegina for didrachms, must have begun to feel a serious shortage of pieces of that denomination. Sicyon and the mints of Olympia between them endeavoured to supply the need thus created. Now the earlier coinage of **Sicyon** had consisted of drachms and smaller pieces, having two devices; on one side a dove, and a large **Σ** on

¹ *Hist. Mirab.* 15 (third century B.C.). For a discussion of the type see A. B. Cook, *Zeus*, ii, p. 831 ff.

the reverse in an incuse square [Pl. **xxxiv**, 20]. This letter calls to mind a Lacedaemonian stratagem employed in 393 B.C. during the Corinthian war. Xenophon recounts¹ that, after a Sicyonian detachment had been destroyed by the Spartans, the latter took possession of their shields each of which bore a large Σ as device. Thus disguised the Spartans marched against a body of Argive troops, which mistook the bearers of Σ shields for Sicyonian allies, and were in their turn slaughtered.

It was probably about 420 B.C. that Sicyon began the issue of Pheidonian didrachms, on which the dove badge was con-signed to the reverse and set within a wreath of laurel². The obverse was thus left free for a representation of the Chimaera, offspring, according to Hesiod, of the lion of Nemea and the hydra of Lerna, two districts adjoining the territory of Sicyon. The fifth-century coins bear the legend ΣΕ [Pl. **xxxiv**, 18], which in the course of the next century was replaced by ΣΙ [Pl. **xxxiv**, 19]. Once Chimaera's father, the Nemean lion, takes her place on a coin³.

Olympia, where commerce was merely incidental to other activities, suffered a severe decline during the first part of the Peloponnesian war, mainly because Athens and all her allies were excluded from participation in the Games. Thus few coins were issued for the festivals that fell between 431 and 421 B.C., but these few with their eagles, thunderbolts and Nikes [Pl. **xxxv**, 1, 2] were among the finest products of the die-engraver's art⁴. The peace of Nikias, however, produced a change in 421 B.C., for the first clause of the treaty contained the stipulation that the Athenians and their allies were to have full and free access to all the temples, oracles, and games common to the Greeks.

Now an Olympic festival was approaching, coined money was relatively scarce, and the one mint in Olympia could not hope to meet the inevitable demand. Hence a second mint was opened in 420 B.C. and apparently placed under the management of the priesthood of Hera, for all the coins which issued from it bore the head of that goddess. Thus it came about that the goth

¹ *Hellenica*, iv, 4.

² A wreath appears at Olympia for the first time in 420 B.C.; thus Babelon's dating (*Traité*, iii, p. 523) is nearer the mark than Head's. But the former was mistaken in describing the wreath as of olive.

³ E. Babelon, *Traité*, iii, Pl. CCXXI, 21.

⁴ The earlier Olympic coins are described on pp. 96 f. and 106 f.

Olympiad was productive of an abundance of coin, and, because of the high quality of die-engraving to which the Eleans had grown accustomed, there now appeared some of the most perfect coins ever struck. Three may be selected as of the first rank; two from the mint of Zeus, one from that of Hera; a head of the god, a head of the goddess, both expressive of the Olympian dignity, balance and restraint that marks sculptures and metopes from the temple of Zeus; and the third, a great head of an eagle [Pl. **xxxv**, 3, 4, 5]. Rarely has an artist achieved the task of suggesting a kind of divinity in an animal form; the lions of Amenhotep III possess it, and perhaps the Persian bull-capitals from Susa¹; but these display it in part, at least, because of their large size; the eagle of Olympia, in spite of its smallness [Pl. **lxiv**, 6]. The engravers of these dies were sufficiently appreciated in their own day to be allowed signatures; $\Delta A \dots$ made the head of Zeus and of the eagle, $\Lambda \dots$, working in the other mint, that of Hera; but though their initials survive, their names are lost to us. The reverses of the three coins all have thunderbolts, winged and spiralled, or flame-enveloped, within crowns of wild olive such as were awarded as prizes in the Games. A few Olympiads later and a third artist, Polykaon², made dies for both Olympic mints, some with the head of Hera and an eagle reverse type being remarkably effective [Pl. **xxxv**, 7].

The next important event in Olympia that left its impress upon the coinage was an episode of a somewhat distressing kind for the Eleans. But to get this episode into its true historical perspective we shall do well to leave Olympia for a while and to consider the general situation in the Peloponnese, which developed in consequence of the defeat suffered by the Lacedaemonians at the hands of the Thebans in 371 B.C. at Leuctra.

Epaminondas by three invasions brought the force of Theban influence into Peloponnese, where the Arcadian League with its new capital at Megalopolis was founded in 370, Messene rebuilt in 369, the Achaean League organised about 366 B.C. The coins issued to record these events by these three states have a remarkable quality of restraint, such as might incline us, did we not know the exact circumstances of their issue, to date them in the fifth century. The fact is that, though signs of artistic opulence appeared in Athens as early as 420 and in Sicily by

¹ *C.A.H. Plates*, i, 144 b and 320 a.

² *N.C.* 1951, p. 48 ff.

400 B.C., the virility of fifth-century art lasted in the Peloponnese and Crete for at least half a century longer. Trained in this virile Peloponnesian tradition there arose in the second half of the century the Sicyonian sculptor Lysippus, the restrained realism of whose art could carry on something of Hellenic *ethos* more faithfully than could the sentimentality of the Praxitelean and the emotionalism of the Scopaeic schools.

From **Megalopolis**, the new federal capital of Arcadia, there were issued didrachms and smaller fractions, the former having as obverse type an admirable head of Zeus Lykaios, and, upon the other side, Pan seated upon a rock, his *lagobolon* (or throwing-stick) in his right hand and the *syrinx* (or Pan-pipes) at his feet. On the earliest extant specimen the letters **XAPI** are engraved upon the rock, and this die, after doing duty possibly for the space of a year, was replaced by another from the hand of another engraver and with the name changed to **OAYM**. The names must therefore be those of father and son, or brothers¹. The next coins were supplied with a Zeus-head more long-haired and leonine in type [Pl. **xxxv**, 8], like that of the so-called Asklepios in the British Museum². In the field of all these pieces appear in monogram the letters **APK**, for the name of the Arcadians.

Not all the Arcadian cities took part in the synoecism at Megalopolis; Tegea, Mantinea, and the northern cities like Cleitor, Pheneus, and Stymphalus stood aloof from the enterprise. But the two last, influenced perhaps by the growing tendency on the part of small states to produce coins, issued some attractive pieces about 370 B.C.³ **Pheneus** struck didrachms, drachms, and fractions, the heads of Demeter on the larger denominations being copied from the type first introduced by Euainetos at Syracuse; and it is probable that the prototypes found their way home in the pockets of soldiers. The reverse of the drachm has as type a seated Hermes not unlike the seated Pan upon the Megalopolitan coins [Pl. **xxxv**, 10]; the didrachm shows a Hermes moving to the left, but looking back at an infant

¹ Seltman, *Masterpieces of Greek Art* p. 112. Observe that a careful inspection of Babelon, *Traité*, iii, Pl. CCXXIV, 4 leaves little doubt that it's a forgery.

² H. Bulle, *Der schöne Mensch*, p. 231.

³ It is not necessary to date these coins after the battle of Mantinea in 362 B.C.

(occasionally labelled as **ΑΡΚΑΣ**) whom he carries on his left arm [Pl. **xxxv**, 12]. According to the myth, when Hera out of jealousy transformed the nymph Callisto into a she-bear, Zeus, her lover, sent Hermes to rescue their child Arkas, and Hermes took him to Maia, who brought him up on Mount Kyllene. The young god holding the boy naturally carries the mind straight to the almost contemporary Praxitelean figure. The subjects are similar, but there the likeness ends; for the soft smoothness of the Athenian's treatment is in direct contrast to the firmness of the dry Peloponnesian work on the coin.

The siccity¹ which is so characteristic of Lysippus is already apparent on this didrachm of Pheneus, a state separated by the massif of Mount Kyllene from the state of Sicyon. Another Lysippean type is foreshadowed on the drachm [Pl. **xxxv**, 10] with a seated Hermes, the type represented in sculpture by the bronze Hermes from Herculaneum and the Ares Ludovisi in Rome.

The didrachms of neighbouring **Stymphalus**, contemporary with the coins from Pheneus, have a head of Artemis Stymphalia wearing an earring with five pendants, her hair elaborately dressed; and on the reverse a figure of Heracles striding along with upraised club, his left hand holding bow and quiver, while his lion-skin with flapping paws is wrapped round his left forearm [Pl. **xxxv**, 13]. A bas-relief or a painting, rather than a free-standing figure, must be the type behind this subject. Smaller coins show the hero's head and the head and neck of one of the legendary Stymphalian birds.

In 369 B.C., the year after the Arcadian revival, Epaminondas restored and rebuilt **Messene**, the circuit of whose walls may be seen to this day. Like others of their contemporaries, the Messenians copied the head of Demeter on their first didrachm from the head of Arethusa by Euainetos; but on the reverse they placed a representation of their celebrated cult statue, the bronze Zeus Ithomatas whom Hagelaidas had made for them long ago [Pl. **xxxv**, 14]².

The next act of Epaminondas commemorated by a coinage was the organisation of the **Achaean**s into a League, with their capital probably at Aegium, in 367 B.C. The head of the goddess upon the didrachm then issued recalls, with its earring of five

¹ Pliny, *N.H.* 34, 65.

² See p. 135 above.

pendants, the contemporary piece of Stymphalus, but the hair of the Achaean goddess is even more elaborately dressed. The enthroned Zeus, an eagle upon his outstretched right hand, on the reverse may be Zeus Amarios of Aegium; the goddess, probably Artemis Laphria, who had a famous sanctuary at Patrae [Pl. xxxv, 15]¹.

The Achaean League, torn by internal dissensions, achieved little at this period. By contrast the more united Arcadian League attempted to increase its influence at the expense of its neighbours, and began by a serious endeavour to weaken and humiliate Elis. An opportunity for this was found by reopening a question, which seemed to have been settled more than two centuries previously, regarding the presidency of the Olympic Games. About 572 B.C. the ancient city of Pisa, close to Olympia, had been destroyed by the Eleans, and its inhabitants scattered among surrounding farms and villages, in which their descendants had continued to dwell, still calling themselves Pisatans. Now, in the year 364 B.C. the Arcadians, hoping to gain control over all southern Elis, assembled the farmers of Pisa and proceeded to restore them to their ancestral right of presiding over the Olympic Games. While the 104th Olympic contest was in progress, an Elean army attempted to recapture Olympia; but the Arcadian forces beat them off and annexed some of the gold belonging to Zeus, coining money from it to pay their own militia. On the obverses of the two surviving coins of this issue is the laureate head of Zeus; on the reverses the letters ΠΙΣΑ, and three half thunderbolts upon the larger, a thunderbolt upon the smaller of the pieces [Pl. xxxv, 9, 11]. They had a purchasing power, the one equal to three, the other to two Peloponnesian silver drachms². A year later the Arcadians bowed before public opinion, which had been outraged by the waging of a pitched battle within the Altis, made peace with Elis and evacuated Olympia, while the Pisatan "presidents" returned to their ploughs and pruning-hooks. Thereafter the Elean coinage of Olympia could resume its normal course.

The exigencies of chronology made it impossible to delete this episode from the calendar altogether, but it was marked as a date of evil memory by the ordinance that the 104th event should

¹ Pausan. vii, 24, 2; vii, 18, 6.

² Seltman, *Temple Coins of Olympia*, p. 56 f. M. Cary in *C.A.H.* vi, p. 97 f.

thenceforward be known as an *an-Olympiad*. Further, the coinage which followed the regrettable gold of Pisa and which was probably issued about 360 B.C. for the 105th Olympiad, bore the legend **FAΛEION** and the head of Zeus upon one side, that of the nymph Olympia, named **ΟΛΥΜΠΙΑ**, upon the other [Pl. **xxxvi**, 1], a didrachm this from the Zeus-mint; while the Hera-mint at the same time issued a few pieces with the same nymph's head as obverse type [Pl. **xxxvi**, 2]. This gesture once made, the nymph could be dropped in subsequent issues, and the older mint settled down to a series of Zeus-heads, the younger to Hera-heads, both with eagles as reverse types [Pl. **xxxvi**, 3, 4]¹. The clean-cut dryness of Peloponnesian art is apparent on the majority of these attractive coins².

Before 360 B.C. every large region of Peloponnesus, Sicyonia, Achaea, Elis, Messenia, and Arcadia, was issuing fine didrachms, and it was not to be expected that the one state which, since the downfall of Sparta, was the most prosperous of all should stand aloof from this practice. It was perhaps about 370 B.C. that **Argos**, feeling the need of something larger than the old half-drachms with the half wolf as type, began to issue drachms and didrachms. That year saw the triumph of the Argive democratic party, which was in sympathy with the new Arcadian aspirations and might mark its accession to power by new types. A head of Argive Hera, reminiscent perhaps of the Polycleitan cult statue in the Heraeum³, is on the obverse of the coins; while the didrachm has for reverse type two large dolphins enclosing a smaller badge, and the drachm a figure of the Argive hero Diomedes carrying the Palladium which he brought from Troy to Argos [Pl. **xxxvi**, 5 to 8]. The figure of this hero is to be compared with the somewhat earlier Ajax on the Locrian, and the Leukaspis on the Syracusan coins [Pl. **xxxiii**, 14, 16; **xxiii**, 7]. A swan with flapping wings which follows on his heels upon the earliest drachm is a magistrate's badge, for the same swan appears between the dolphins upon the earliest didrachm [Pl. **xxxvi**, 5, 6]⁴. Among

¹ K. Regling, *Festschrift für H. Buchenau*, 1922, p. 50 ff. proposed an earlier date for our Pl. **xxxvi**, 3. But I find it hard to concur.

² Seltman, *op. cit.* Plates VI and XI.

³ Pausan. ii, 17, 4.

⁴ The contemporaneity of the two denominations with swan-badge makes the older date of 421 B.C. for the Argive staters impossible (*H.N.* p. 438), for the drachm cannot be earlier than the coins of Locris, which cannot have been struck before 385 B.C.

other symbols are a wolf, a bucranium, a tripod, and a tall pump with pump-handle and a cup resting upon its spout. This curious object is not improbably to be associated with the sacred "water of freedom" used by the priestesses at the Heraeum for purifications and in secret rites¹, and ceremonially drunk by slaves at the time when they were given their liberty². Smaller denominations of the fourth-century Argive coins have heads of Hera similar to those upon the bigger pieces; their reverses have a Palladium, or a picture of the key of the Heraeum for type.

E. CRETE

Since the cities of Crete were Dorian and their commercial relations particularly close with the Aeginetans and Peloponnesians, it was only natural that they should from the first have employed the Pheidonian standard. The circulation of the money of their northern neighbours among the Cretans led to frequent imitation, a practice which began when the sixth-century Cydonians imitated Aeginetan turtles³, and was carried on freely in subsequent periods. Hierapytna, Eleuthernae, and Cretan Chersonesus copied the Arcadian Zeus, and the latter city turned out faulty imitations of Stymphalian didrachms; Cnossian Hera mimicked her sister of Argos, Cydonia imitated Pheneus. But this is not to say that the die-engravers of Crete were incapable of original productions.

Next in point of time to the imitative turtles of Cydonia were certain early coins of **Gortyna** and **Phaestus** in the south of Crete. The first didrachm might belong to either city, since it depicts types common to both and is anepigraphic. A sturdy archaic Europa sits sideways on the Zeus-bull like some full-skirted elderly Greek peasant woman of to-day upon her donkey; a triple circle frames this group; and on the other side a facing lion-scalp is in a square⁴. This was followed almost immediately by other early fifth-century coins with similar types and with inscriptions in the archaic Cretan alphabet written round the facing scalp. In one case we read Γόρτυνος τὸ παῖμα, in another

¹ Pausan. ii, 17, 1.

² Hesychius, s.v. ἐλεύθερον ὕδωρ.

³ E. S. G. Robinson, *Pseudoaeginetica*, N.C. 1928, p. 172 ff.

⁴ Imhoof-Blumer, *Rev. Suisse de Num.* 1913, Pl. I, 6. This piece is overstruck on an early fifth-century coin of Siphnos; its archaic appearance is therefore deceptive.

Φαιστίων τὸ παῖμα, the last pair of words in each case meaning "the thing struck," that is to say "the coin," of Gortyna, or of the Phaestians [Pl. **xxxvi**, 9, 11]. These types remained on the Gortynian money during the greater part of the fifth century [Pl. **xxxvi**, 10], while Phaestus issued pieces of varying types showing a winged Talos (or Talon), the legendary bronze man made by Hephaistos, who daily perambulated Crete as a sentry, and the golden dog made by the same divine smith [Pl. **xxxvi**, 12]; or Heracles between a tree and a serpent; or a bull hobbled or haltered¹. These types have a pictorial quality which suggests a derivation from some local series of frescoes, rather than from reliefs; and this pictorial character is even more apparent in the fourth-century coins of both cities. At Phaestus Europa sits upon a rock holding out her hand to stroke the muzzle of the Zeus-bull, whose forepart comes walking into the design, while a Hermes rests upon a mountain-top on the coin's reverse [Pl. **xxxvi**, 13]; or a youthful beardless god sits elegantly in the fork of an old willow-tree, holding a cock upon his knees; his name, inscribed beside him, tells that he is **ΛΕΛΧΑΝΟΣ** (Welchanos), a name, as we learn from Hesychius, for Zeus among the Cretans² [Pl. **xxxvii**, 1]. The bull on the reverse of these coins as well as the willow-tree appear to link it up with the contemporary didrachms of neighbouring Gortyna, coins upon which there is told, after the manner of a series of frescoes, the tale of the amours of Europa and Zeus. At first she sits pensively in her willow while the bull, upon the reverse, skilfully foreshortened, licks his flank. Next Zeus has changed into an eagle perched on a branch beside her, while she lifts her veil with the gesture of a bride; on the reverse, since the god has passed into an eagle, the bull is mortal once more and is startled by a teasing gad-fly. In the third stage there is the embrace, Europa and the eagle grouped like a Leda and swan; and the poor bull maddened by the fly [Pl. **xxxvii**, 2, 3, 4]³. This is surely the story told by some painter and translated to a series of coins, a weird myth full of lost or faintly discerned links with the beliefs of Minoan Crete, its sacred trees and birds and bulls, and

¹ Svoronos, *Num. de la Crète ancienne*, Pl. XXIII.

² For a full discussion of the name see A. B. Cook, *Zeus*, ii, p. 946 ff., where he is regarded as a willow-god.

³ Svoronos, *op. cit.* Plates XIII to XV. The fly appears *loc. cit.* Pl. XIV, 17 and XV, 2.

its all-powerful goddess, sunk now to the rank of a nymph though bearing the name of a continent.

Cnossus, which began its coinage in the fifth century, employed types that are mainly allusive to legends of her Minoan past. First comes the Minotaur and a labyrinthine swastika for reverse [Pl. **XXXVII**, 5]; and about the turn of the century there is **ΜΙΝΩΣ** sceptred and enthroned, and within a meander frame the head of a youthful goddess who may be Ariadne [Pl. **XXXVII**, 6]; then there comes the head of Persephone corn-wreathed and the labyrinth for reverse; while the mid-century produced didrachms and drachms with the same reverse, but on the obverse a fine head of Hera, which is a free copy of those upon the coins of Argos produced about 370 B.C. [Pl. **XXXVII**, 7].

It is characteristic of the money of all the Cretan cities that, side by side with the dies made by engravers as skilled and competent as any in Greece, there were employed other dies of a crudity and of a clumsy coarseness such as is without parallel elsewhere save among half-Greek populations. It seems that, after a few master-dies had been made for a city by a travelling artist, any apprentice or coiner's mate might be told off to imitate the dies as best he could. Another curious phenomenon that appears is the use of the same die in widely separated cities. A fine Zeus-head die, an adaptation of an Arcadian League didrachm, was employed at Hierapytna, on the south coast near the eastern end of Crete, with a palm-tree and eagle reverse; then transferred to Eleuthernae, close to the north coast and towards the western end, and used with a local reverse having an Apollo for type [Pl. **XXXVII**, 9, 10]. Did one city sell a die to the other? Or was the die the property of a travelling engraver who was hired by the states in succession? A Cretan, a certain Neuantos, was one of the only two die-engravers¹ known to us who signed the word *ἐποίησεν* after his name. At **Cydonia** he produced dies for a didrachm with the head of a vine-crowned goddess having an earring of five pendants, as had the goddess at Stymphalus about 370 B.C., and with his signature **NEYANTOS ΕΠΟΙΕΙ**; and on the other side **ΚΥΔΩΝ**, a youthful hero bending a bow, the son of Apollo and Akakallis daughter of Minos [Pl. **XXXVII**, 8]. In the neighbouring city of **Aptera**, also at the western end of Crete, a contemporary of Neuantos, named Pythodoros, made

¹ Theodotus of Clazomenae is the other; see p. 182.

dies with a head of Artemis, and on the reverse an armed personage raising his hand in the attitude of worship towards a bay-laurel tree [Pl. **XXXVIII**, 3]. He is named **ΠΤΟΛΙΟΙΚΟΣ**, which seems a local form of *πολέως οἰκίστης*, or "Founder of the City." This is no other than Apteras, a legendary king of Crete, and the bay-tree that of Pythian Apollo. From Pausanias we learn that the second temple at Delphi was built by this individual¹ and the Apteraeans here corroborate this. The engraver Pythodoros also signed a die which he made for another city near by, **Polyrrhenium**, a triobol with a little head of Diktyнна, and a bull's head facing decorated with sacrificial fillets [Pl. **XXXVIII**, 2].

At the eastern end of the island the three most flourishing Cretan cities appear to have been **Itanus**, **Lyttus**, and **Praesus**. Of these the first being a sea-port had a marine blazon in the shape of a strange fish-tailed god armed with a trident. Glaukos or Triton we may call him, but he finds perhaps his closest parallel on certain Phoenician coins of Aradus of about 400 B.C.² The reverse presents at first a star, and later two fine sea-serpents face to face [Pl. **XXXVII**, 11]. During the fourth century the types changed, a head of Athena copied from fourth-century Attic coins on one side, an eagle upon the other, often with a little fish-tailed god beside the bird, being the new types [Pl. **XXXVII**, 12]. **Lyttus** was the most conservative of Cretan states, since, for a century and a half from about 450 B.C. onwards, its types remained the same; a flying eagle and the head of a boar with upstanding bristles [Pl. **XXXVIII**, 1]. The earlier coins of **Praesus** showed a kneeling archer and a flying bird as types, to be followed presently by certain others having a reference to the chief local cult, for Mount Dikte was in the territory of this state. Zeus Diktaios, known also as Zeus Akraios, for he is labelled **ΑΚΡΑΙΟΣ** on one die³, is seated almost facing⁴, on a throne and holds eagle and sceptre; on the reverse is a bull or the forepart of a Cretan mountain-goat [Pl. **XXXVIII**, 4]. In the fourth century the bull is retained, but for a while Zeus is replaced by the head of a goddess copied from the Syracusan type created by Euainetos. Here, as in the Peloponnese, we may

¹ Pausan. x, 5, 9.

² *B.M.C. Phoenicia*, Pl. I, 1 to 7.

³ C. T. Seltman in A. B. Cook, *Zeus*, ii, p. 871 (4).

⁴ Under the influence of the Alexander coinage he later on shows his profile.

perhaps see the influence of coins brought home from Sicily by Cretan mercenary archers.

Finally there are the coins of two important inland cities to be considered, those of **Rhaucus** and of Sybrita. Though away from the coast the former state had a cult of Poseidon Hippios, who must have reached Crete with some of the first Northern invaders of the island. The god holding a trident stands beside his horse, the fore-feet of which are still sunk in the rock from which Poseidon called it forth; a trident-head is on the other side [Pl. **xxxviii**, 9].

It was **Sybrita** which produced the most attractive coins by far of any city in Crete. Dionysus and Hermes were her gods. First came a fifth-century coin with Hermes seated on a rock, almost facing, but with his head to right, his right leg fore-shortened; on the other side *Συμπριτίων*, in the older Cretan alphabet, is written round a winged hippocamp [Pl. **xxxviii**, 5], a maritime creature which indicates that the city probably possessed a port¹. There is a Cretan pictorial quality about didrachms and drachms of about 400 B.C., which display a seated Dionysus, bearded, holding a *kantharos* in his right, a long *thyrsos* in his left hand; and on the reverse Hermes standing; his hat slipped off is held to the back of his head by the chin-strap round his neck, and he holds patera and caduceus [Pl. **xxxviii**, 6]. About 360 B.C., perhaps, an engraver trained in Peloponnesus came to Sybrita, and from his hand there came a number of admirable dies: first for coins with a head on either side—Dionysus bearded, ivy-wreathed, as dignified as the Arcadian Zeus but more benign; and Hermes, *petasos* on head tilted a little forward, held by a strap passed around the back of his head, his caduceus standing up before his face [Pl. **xxxviii**, 8]. Next there were other dies; Dionysus, beardless, carrying a *thyrsos* and riding sideways on a galloping panther; and better, for the reverse, Hermes foot on rock lacing his sandal [Pl. **xxxviii**, 7]. Here, as at Pheneus, is an anticipation of a famous Lysippean pose, the "Lansdowne athlete²."

Fourth-century Peloponnesians by contributing some of its art to Crete repaid the debt it owed to the primitives, Dipoinos and Skyllis, who had brought the art of sculpture from Crete to the Peloponnesians in the seventh century.

¹ G. F. Hill, *Essays in Aegean Archaeology*, p. 53 f.

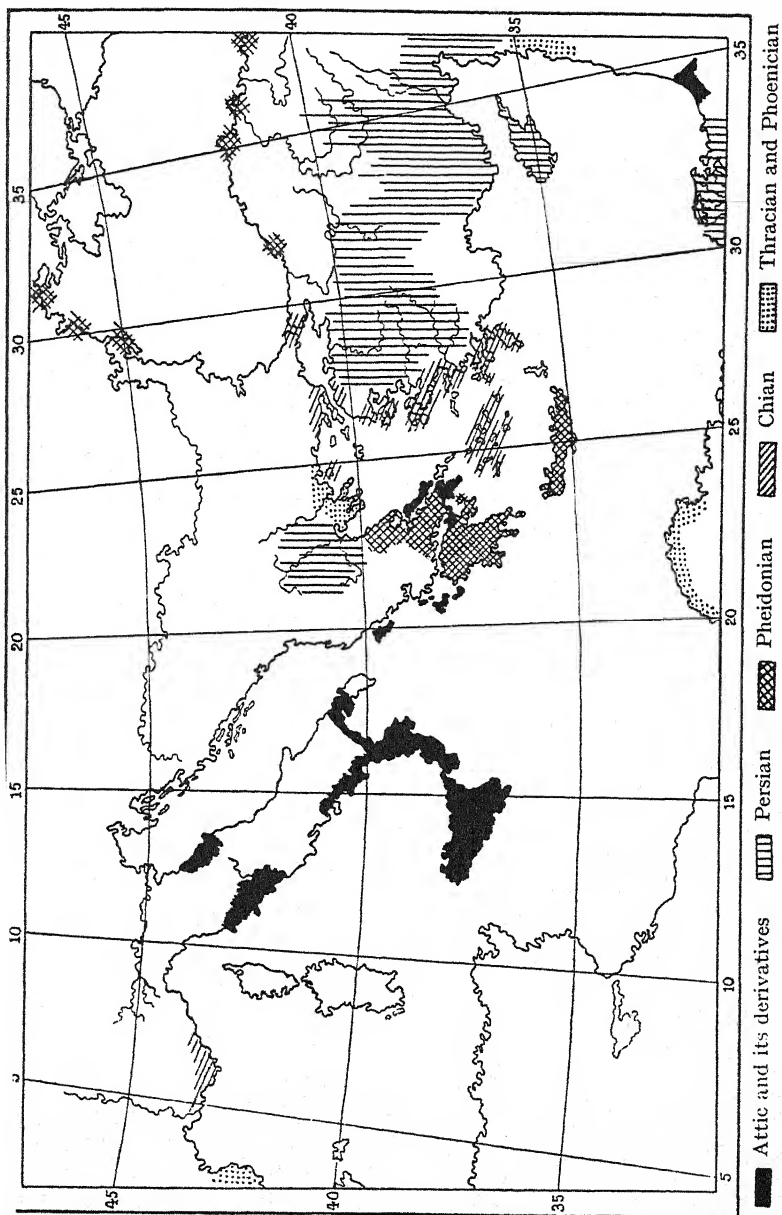
² *C.A.H. Plates*, ii, 98 a. Now in Copenhagen.

F. THE CYCLADES

The maritime empire of Athens had successfully restrained the majority of the Islanders from issuing money. One island, **Melos**, however, preserved an obstinate autonomy, which the Athenians bore with resentfully until in 416 B.C. the island was invested, captured, the fighting men slain, and the remaining inhabitants sold into slavery, while Athenian settlers took their place. Here was that callous assertion of the theory that might is right, which caused Thucydides to use this episode to illustrate the overbearing spirit of the Athenians on the eve of the expedition against Sicily—an expedition that was to end by humbling their city in the dust. Up to 416 B.C. the Melians issued a plentiful coinage¹ retaining the old Milesian standard with its unit of about 14 grammes. The obverse type throughout was a quince ($\mu\eta\lambda\omicron\nu$), a canting badge, while a large variety of reverse types were employed; geometric patterns, wheels, a crescent, a star, a gorgon, a flower, a triskeles, a four-pronged fish-spear, and of animal-types there are dolphins [Pl. **xxxviii**, 10, 11, 12], a ram's head, and a wasp feeding on a bunch of grapes. Once only there appeared a human head, that of a youth in a tall, felt sailor's cap or pileus, such as Odysseus wears in various representations [Pl. **xxxviii**, 13].

When Lysander in 404 B.C. reinstated the scattered remnants of the Aeginetans in their island, he was also able to do a like service for the surviving Melians, who proved sufficiently numerous to regain some of their prosperity, as is evident by the coins that they were able to issue [Pl. **xxxviii**, 14]. In type these resembled the money used shortly before 416 B.C.; a quince on one side, and some of the old badges, like the fish-spear, amphora, and ram's head on the other. These coins do perhaps suggest two reflections. Firstly, their abundance indicates that Melos had probably an importance in the light of which the Athenian attack does not appear as aggrandisement for aggrandisement's sake. Secondly, the annihilation was not so complete as Thucydides suggests. At Aegina there was indeed a longer interval and no annihilation, but there was neither the same continuity nor a recovery proportionately of the same order.

¹ For the description of a hoard of these coins see R. Jameson, *Rev. Num.* 1909, p. 188 ff.



Following the precedent set by the majority of the liberated subjects of Athens, the Melians now employed the Chian standard, which was also adopted about the same time by the islands of Naxos and Paros for the issue of some drachms. Farther west than these three islands that weight-system did not go, for most states were waiting for the recovery of Athens. A few years of reorganisation there must have been while miners were collected in Attica and the deserted shafts reopened. After that it was inevitable that Laurium should once again be the richest source of silver in Greece.

CHAPTER XI

MERCHANTS AND MERCENARIES

COINAGE during the fourth century B.C. down to the time of Alexander received an added stimulus from each of two different causes. In the first place, despite many small wars involving alike Greek states and Persian satraps, international commerce prospered; and the more Greeks and Persians tended to employ mercenaries, the more there flourished a large class of non-combatant citizens bent on the accumulation of wealth by speculation and business enterprise for which supplies of coined money were required. In the second place, the employment of large mercenary armies which must be paid in coined, particularly in Asia Minor and Sicily, to the minting of much money of a new type; money of the Camp rather than of the City, stamped with badges which should appeal to the soldiery rather than with blazons appropriate to city states.

As an aftermath of the Peloponnesian war most of the ancient world found itself psychologically in an unhealthy condition, which was reflected in the art of the time. Praxiteles and Scopas, searching after new effects, did not attain the power of Myron or the Master of Olympia; and the vase-painting of the fourth century was little more than a parody of the art of an earlier age. Strangely enough most civic coinage did not reflect so markedly the opulence that was tainting other branches of Greek art; and, if a reason is to be sought, it may lie in the fact that coin-types, owing to their heraldic character, are more conservative than any privately produced manifestation of art. The coin remained the outward sign of the dignity of the state. On the other hand the mercenary, by contrast with the civic issues, were frequently flashy, meretricious, and poor.

A. THE REVIVAL OF ATHENS

A few months before the downfall Aristophanes had his grim jest at the base Athenian copper money of 405 B.C. and tacked a moral on to it, little guessing for how long such stuff must pass from hand to hand before he should touch good silver once again.

[Pl. xxxix, 1 to 9], of which the lowest was a *hemitetartemorion*¹, one-eighth of an obol, an absurd little coin of which no less than 192 pieces were required to make up a single tetradrachm.

Athens had lost her empire, but, as the sequel proved, not her commerce. In fact she was able to enter on a new era of prosperity. The dole made a somewhat serious drain upon her budgets, and there was a certain growth of communistic ideas within the state. But in effect this proved to be an era of plentiful money, circulating freely and supported by private banking houses of international repute. The most famous of the Athenian banks was that of Pasion, which operated with a capital of fifty talents, or 300,000 drachms, and had credit in all the bigger Greek cities. Through the services of this house business could be transacted by the exchange of letters of credit instead of by payment in coin. The accurate accountancy in Athenian public finance familiarised both customers and clerks with the possibilities of careful book-keeping and was of real service in promoting commercial transactions. Thus it came about that, though Athens had lost both the tributary payments from her subjects and her monetary monopoly in the Aegean area, she nevertheless became, because of her banks, the principal money market of Greece².

Moreover the industry of the Kerameikos revived. There were no longer markets in Etruria, South Italy, or Sicily for Attic wares, but others including those of Cyrene, the Chalcidice, and especially of South Russia, now began to absorb large quantities of painted vases. The wealthy Graeco-Scythians of the last-named region in their desire to acquire the products of Hellenic culture were ready enough to accept the flashy white nymphs and Erotes, which often decorated fourth-century Athenian vases, as the choicest type of Greek art, the while their own native craftsmen made objects which to our eyes are far superior to the gaudy imports that they favoured.

B. THE SHORES OF THE EUXINE

It was, of course, natural that Graeco-Scythian artists should be employed to make the coins which now began to issue in large numbers from the cities on the northern shores of the Black Sea.

¹ Or *hemitartemorion*.

² M. Cary in *C.A.H.* vi, p. 72.

Before the fourth century their coinage had been inconsiderable except for the large cast bronze pieces of **Olbia**. These had for types a facing Gorgoneion, or an Athena-head based on a Pisistratic prototype; and on their reverses, a spread-winged sea-eagle carrying a dolphin [Pl. **XL**, 1], or a wheel. Small pieces of the same series were actually cast in the shape of a dolphin with raised letters, **APIX** or **ΘΥ**, upon one side [Pl. **XL**, 2, 3]. **Panticapaeum**, a Milesian foundation, issued some fifth-century silver coins with a facing lion's scalp on one side and the letters **ΠΑΝΙ** upon the other [Pl. **XXXIX**, 10]; but in the fourth century this city became the capital of a prosperous kingdom, and from its mint there came a series of coins which display the startling brilliance of design that is typical of Scythian art.

Gold was cheap in Panticapaeum, as may be gathered from the masses of it that have been unearthed from the graves and tumuli near Kertch¹ and in the Kuban, and accordingly gold staters of unusually heavy weight (up to 9·2 grammes) were minted, the first of them apparently shortly before the middle of the fourth century². On the obverses of these staters are heads of bearded satyrs, at first almost facing, then in profile, with pointed ears, snub noses and tousled hair, and later vine-wreathed [Pl. **XXXIX**, 11, 12, 13]. The closest parallels for these splendid heads [Pl. **LXIV**, 5] are to be found on contemporary Scythian objects of Panticapaeum work like the electrum vase from Kul Oba or the golden comb from Solokha³, from a comparison with which it is evident that the satyr has the face of a typical Scyth. The griffin upon the reverse of the coins has likewise his counterpart on other Scythian objects⁴, for he is the Iranian horned and lion-headed griffin, differing from the Greek eagle-headed griffin who appears, for example, on the coins of Abdera. At Panticapaeum he is biting the shaft of a spear and beneath him is an ear of corn reminiscent of the rich corn-fields of the region [Pl. **XXXIX**, 11]. Silver and bronze coins were issued with similar heads, sometimes beardless; and on their reverses there figured the head of a bull or of a lion, or the forepart of a griffin, with a sturgeon sometimes swimming below [Pl.

¹ E. H. Minns, *Scythians and Greeks*; M. Rostovtzeff, *Iranians and Greeks*: *C.A.H. Plates*, iii, 82, 86, 90.

² K. Regling, *Z. f. N.* xli, 1931, p. 38.

³ *C.A.H. Plates*, i, 252, 262.

⁴ *loc. cit.* 254.

xxxix, 14, 15, 16, 17]. Panticapaeum could produce caviare as well as corn.

On the south side of the Black Sea were numerous Greek cities, of which the most easterly, **Trapezus**, issued silver with a male head and on the other side a canting-type, a banker's table piled with grapes [Pl. **xxxix**, 18]. **Sinope** showed the head of a nymph and a sea-eagle upon a dolphin [Pl. **xxxix**, 19]; and **Heraclea Pontica** employed as types the heads of Heracles and Hera [Pl. **xxxix**, 20], until the tyrants Timotheus and Dionysius began to rule there in 345 B.C., when their names appeared upon coins representing a head of Dionysus and a figure of Heracles erecting a trophy [Pl. **xxxix**, 21]. All these cities employed the Pheidonian standard, but for the money of **Byzantium** and **Calchedon** the Chian system was adopted. For both cities a bull and a quartered square were the types; but the former placed a dolphin, the latter an ear of corn beneath the bull [Pl. **xli**, 1, 2]. **Cyzicus**, continuing her annual output of handsome electrum staters down to the time of Alexander's conquest of Asia, placed on the coins, besides types of general or purely local significance, heads that are obvious portraits [Pl. **xli**, 3], and also copies of blazons used by other states, among them Heraclea Pontica, Acanthus, and Citium¹. Meanwhile, after Conon's victory at Cnidus in 394 B.C., **Lampsacus**, which had begun to coin gold staters, equivalent to Persian darics, continued this issue as long as Cyzicus coined her electrum. At first there were figure subjects, like the infant Heracles [Pl. **xxxii**, 12]², Nike killing a ram [Pl. **xli**, 7] or erecting a trophy, but these were presently followed by a series of heads, Zeus, Hera, Athena, Aphrodite, Demeter, Hermes, Helios [Pl. **xli**, 9, 10, 11], and Pan; in fact most of Olympus was represented, besides mythological persons such as Actaeon with a stag's horns springing from his head, Helle riding a ram across the Hellespont [Pl. **xli**, 8], and Thetis on a dolphin³. In every case the reverse type was the forepart of a winged horse. Simultaneously, the neighbouring city of **Abydos** struck some gold coins of similar fabric and weight. Nike, as at Lampsacus, is here depicted killing a ram [Pl. **xli**, 6], and Artemis rides a stag; but the state's blazon, an eagle, is on the reverse [Pl. **xli**, 5]. Contemporary with these

¹ *Z. f. N.* xli, 1931, Pl. III, 83, 138, 139.
A. Baldwin-Brett, *A. J. N.* liii, 3 (1924).

² See p. 157.

were silver tetradrachms of Chian weight with similar eagles, heads of Apollo being the obverse types [Pl. **XLI**, 4].

Farther south in Ionia another Greek city soon began to strike coins, **Clazomenae**, which had become a member of the second Athenian Confederacy and had thus grown accustomed to the revived Attic standard. However, the Peace of Antalcidas in 387 B.C., enforcing as it did that Confederacy's dissolution, put Clazomenae, in name at least, back under Persian suzerainty. The lightness of the Persian overlordship is apparent from the fact that the city was allowed, like Lampsacus and Abydos, to mint both gold and silver. The former pieces of 5·7 grammes were two-thirds of a daric or of a Lampsacene stater, the latter were struck on the Attic standard, which here made its first re-appearance in fourth-century Ionia. These coins, which were possibly issued during two decades¹, are among the most attractive of their time; both metals show a head of Apollo nearly facing, and a swan with open wings on the reverse [Pl. **XLI**, 12, 13]. On one of the earlier tetradrachms the god has a small close-fitting cap upon his head; another, slightly later, bears the engraver's signature ΘΕΟΔΩΤΟΣ ΕΠΟΙΕΙ and the name of a magistrate. Numerous smaller silver pieces were also produced at this time.

C. CYRENAICA

The second region to which, as finds have proved, Athens exported large quantities of her fourth-century pottery was Cyrenaica, a district in which the two chief cities, **Cyrene** and **Barce**, issued an abundant coinage during the sixth, fifth, and fourth centuries. The regular blazon of these cities was the silphium plant, a species, now rediscovered, akin to the Asiatic *asafoetida*, the *hing* of modern India: as with the latter, its juice was used as a seasoning and as a drug, while the stalk was eaten as a vegetable. The wealth of Cyrenaica depended largely on the export of this most popular plant, which may at first have been a royal monopoly, since we may assume that the cargo, being loaded under the eyes of the king of Cyrene on the Laconian "Arcesilas" cup in Paris², consists of bales of silphium.

¹ K. Regling, *Z. f. N.* xxxiii, 1921, p. 46 ff.

² E. Pfuhl, *Malerei u. Zeichn. d. Griech.* iii, fig. 193; *C.A.H. Plates*, i, 378 b. For the coinage of Cyrenaica see E. S. G. Robinson, *B.M.C. Cyrenaica* with full introduction.

Varied types occur on the archaic coins, such as a seated nymph, a gazelle, and Heracles in the garden of the Hesperides, but always there is silphium present [Pl. XLII, 1, 2]. In the fifth and fourth centuries, however, the badges became fixed; the plant on one side, the head of a bearded Zeus Ammon with a ram's horn on the other [Pl. XLII, 3], while the cities' names, either **KVPANAION** or **BAPKAI** (generally abbreviated), alone serve to distinguish from which mint the coins come. The worship of the chief deity was adopted, probably in the seventh century, from the Oasis of Ammon at Siwah, which in its turn had derived the ram-god from the Egyptian Amon-Ra, and while he might figure sometimes as a perfectly dignified laureate Olympian with unobtrusive horn [Pl. XLII, 4] he could also look almost like a man-faced ram [Pl. XLII, 5], or even a pensive satyr who has somehow acquired a uraeus from Egypt [Pl. XLII, 7]. Most surprisingly, in one instance he has such a cast of countenance and such curly hair as would suggest a touch of negro blood [Pl. XLII, 6]. The standard employed at Cyrene down to about 435 B.C. was the Attic, but the prevalence of a decimal system of weight and measure in Egypt led the Cyreneans after a time to divide their largest silver coin of about 17 grammes into five drachms. Thus the tetradrachm became locally a pentadrachm, with a drachm of 3·4 grammes, and after 435 B.C. new tetradrachms were struck weighing only four of the light drachms. The result, a coin of about 13·5 grammes, corresponded exactly with pieces of the Asiatic standard employed at this period in Tyre, Sidon, and Byblus. On this weight-system a number of small gold coins were minted about 400 B.C. with types like the silver, or with a nymph's head in place of the silphium; after about 375, however, a considerable quantity of gold coins, staters, drachms, hemidrachms, and tenths, was produced; these on the Attic standard, which was fast regaining its popularity. Four-horse chariots figure on the staters, and as reverse types figures of Zeus Ammon, standing, often with a ram at his side, or seated, with eagle near him or perched upon his hand. Drachms have horseman and silphium for types [Pl. XLII, 9, 8, 11]. These fourth-century coins regularly have the names of magistrates, who also set them upon contemporary pieces of silver.

D. PHOENICIA

The issues of the Phoenician cities to which the Cyrenean silver of the fourth century corresponded in weight call for a brief mention. **Sidon** struck large pieces of 25·7 and others 6·9 grammes, octadrachms and didrachms to the Greeks, with ships, fortifications, and rampant lions as obverse types and, on the reverse, either the king of Persia driving with his charioteer in a large car drawn by four horses, while there follows him on foot, as a humble attendant, Pharaoh in Egyptian garb; or the king of Persia killing with his dagger a lion, which he holds upright by its forelock [Pl. **xli**, 16, 17]. At **Tyre** there were mainly issued pieces of 13·5 grammes showing Melqart riding a hippocamp over a line of waves and a bird, save for its head, more like a hawk than an owl, holding under one wing the crook and flail of Egypt, the symbols of kingship [Pl. **xli**, 15]. From Byblus, or **Gebal**, came some coins of similar weight to the last with types of a war-galley and swimming hippocamp, and on the reverse a lion bringing down a bull. A war-galley was also the regular type at **Aradus**, but always on the reverse, while the main side bore at first a fish-tailed, bearded god and later the same god's head [Pl. **xli**, 14]. These pieces, however, were adjusted to the Persian shekel standard.

E. EASTERN MILITARY ISSUES

It was this same standard which was used for the large quantities of coins struck by Persian satraps for payment of the troops employed both in the wars that they conducted against one another and later for the great revolt of the satraps in 366 B.C. against Artaxerxes II. The governors who were mainly responsible for these issues were **Tiribazus**, satrap of Sardis in 393, **Pharnabazus**, satrap of Dascylium from 413 onwards, **Datames**, satrap of Cappadocia (386-362), and **Mazaeus**, who administered Cilicia from 361 to 334 B.C. The coins which the three first caused to be issued, were, however, not struck in the capitals of their respective satrapies, but in Cilicia¹, a district which naturally also supplied the issues of its own governor, Mazaeus. There after 381 B.C. Tiribazus issued double-shekels,

¹ Most frequently in Tarsus. The coin with the Nagidian name discussed by P. Lederer, *Z. f. N.* xlii, 1931, p. 190 ff., no. 20, was probably also minted in Tarsus for the town of Nagidus. The helmeted head on the reverse is Tarsian.

the types of which were intended to appeal to both Greek and Persian soldiers, having upon them the heads of Heracles and of a Persian (perhaps Tiribazus himself) [Pl. **XLII**, 12], or the figures of Heracles and the Great King, or again of Zeus and Ahura Mazda, the supreme gods of either race [Pl. **XLII**, 10]. Pharnabazus, probably between 379 and 374 B.C., issued coins with a seated god, who could represent either Zeus or Ba'al, and on the reverse the head of a bearded personage in crested helmet with upturned cheek-piece, who might equally well be Ares or a typical Greek captain of mercenaries. Then the seated god was exchanged for a facing female head, a copy—and a very poor one—of Kimon's facing Arethusa [Pl. **XLII**, 13]. Datames copied the last-named issue [Pl. **XLII**, 14] and produced some others with a Ba'al seated within the encircling wall of Tarsus and a Persian seated, testing the point of his arrow [Pl. **XLII**, 15]; while Mazaeus after 361 B.C. kept Ba'al for obverse, but copied his reverses from the lion-and-stag groups on the coins of the Cypriote Citium [Pl. **XLVIII**, 7; Pl. **XXXI**, 9].

The satraps who caused these coins to be struck seem usually to have employed the mints of several Cilician cities, Issus, Mallus, Nagidus, Soli, and chiefly Tarsus, and, though the legends on the coins are generally in Aramaic, there are sometimes Greek inscriptions instead of, or in addition to, the others.

The revolt of the satraps in 366 B.C. was aided by numerous Greek states and by **Taos**, who had made himself king of Egypt, to whom both Athens and Sparta sent aid, Agesilaus commanding his army, Chabrias, the Athenian, his fleet. The admiral induced the Pharaoh to raise money by holding the priestly colleges to ransom, and from the funds thus secured there were struck gold coins, the composition of which was significant. Their weight was that of a daric, a value to which mercenaries were accustomed; their types Athenian, badges that were familiar; their legend in place of **AOE**, was however **TAO**, for they required the authority of the king of Egypt [Pl. **XLIII**, 1]¹.

Another dynast who sympathised with the rebels, but was able to make his peace with the Great King in time and to retain his possessions was **Maussollus**, satrap of Caria from 377 to 353 B.C. This king borrowed his weight-system, the Chian, from

¹ A single specimen is known, in the British Museum; *C.A.H.* vi, p. 21, and *Plates*, ii, 4 h.

the neighbouring state of Rhodes, and the obverse type for his coinage from Clazomenae. A facing head of Apollo occupied the one side and a full-length figure of Zeus Labrayndos of Mylasa, carrying a double-axe and spear, the other, with the king's name inscribed beside him [Pl. **XLIII**, 2]. The god's attitude recalls in some measure the pose of the king himself as he appears in the statue from the Mausoleum of Halicarnassus, which was erected to his memory by his widow Artemisia. The coin types were carried on by the king's successors Hidrieus, Pixodarus, and Rhoontopates, the last of whom surrendered to Alexander.

F. WESTERN MILITARY ISSUES

During the greater part of the fourth century the possession of Sicily was in constant dispute between Carthage and Syracuse, and it is by no means always easy to be sure which of these two states was responsible for the abundant coinages that were struck to pay the mercenary troops employed by each of them. **Dionysius** became tyrant of Syracuse in 405 B.C. at a time when that city was still issuing tetradrachms some of which bore the signatures of the engraver Eukleidas, the head of Arethusa on these pieces being generally represented with upward-streaming hair, while a dolphin was placed beneath the victorious chariot [Pl. **XXIII**, II; **XLIII**, 3]. At the same time, however, decadrachms of the Euainetos type, the work of his pupils, were also minted, and it was the Euainetos head-type [Pl. **XLIV**, 4] which dominated the military issues of Sicily.

The Carthaginians set their engravers to imitate it and to place on the reverse of their tetradrachms a horse and palm-tree, or the head and neck of a horse with a small palm-tree behind it, and Phoenician letters in the field reading *Qart Chadašt* ("New city," i.e. Carthage), or *Am Machanat* ("People of the camp"), or *Mechašbim* ("Paymasters"); all of them coins designed for the payment of troops [Pl. **XLIII**, 4, 5]. But such mercenaries, Italians, Sicels, or Spaniards, were only too ready to change sides for better pay, and as early as 403 B.C. we find Dionysius employing a body of Campanian mercenaries who had been in Carthaginian service. It was probably for the benefit of these, and for others whom he employed in subsequent Sicilian wars, that the Syracusan tyrant struck coins with types exactly like

those of the Punic mercenary issues, but distinguished from the latter by the absence of any legends and a very marked superiority of style [Pl. **XLIII**, 7]¹. The head of the goddess is of purely Greek workmanship on these Dionysian tetradrachms, and the horse, which had as much right to adoption for a Syracusan as for a Carthaginian badge, is either prancing or pawing the ground. The palm behind it was the only sop to the mercenaries who had grown accustomed to such a tree as part of the type of acceptable money.

Thus Greek and Punic military issues of almost identical types circulated side by side for many years in Sicily. At the same time the Carthaginians in Panormus, Resh Melqart and other settlements issued coins with other legends, some like *Ziz* unexplained [Pl. **XLIII**, 6], and with both types copied, generally very badly, from those of the Euainetos decadrachms.

Having gained complete control over the whole of Sicily, but for a small western corner to which Carthage still clung, Dionysius embarked in 391 B.C. on his campaigns for the conquest of southern Italy, his first objective being the city of **Rhegium**, which he successfully captured in 387 B.C. About a quarter of a century previously that city had changed its reverse type, abandoning the seated Oekist² for a laureate head of Apollo, though the lion's scalp facing remained the obverse type [Pl. **XLIII**, 8]. On a few of these fine tetradrachms there occurs the signature of an engraver, **ΚΡΑΤΗΣΙΠΠΟ**, or **ΠΥ**, and Apollo is usually shown with his hair turned up behind and rolled into the back of his wreath. Shortly before 387, however, a number of coins was issued on which the god's hair is loose and flowing [Pl. **XLIII**, 9], and, as soon as Dionysius captured the city, he adopted this very type for an issue of money in electrum, which continued to be struck probably for the remaining twenty years of his reign, being intended apparently primarily for circulation in Italy.

In the adoption of electrum Dionysius was following a Theban precedent; for in 394 B.C. the Thebans, having received a large sum of Persian gold, had resorted to the plan of diluting it with silver and issuing electrum pieces³ for the war against Sparta. The East was, of course, accustomed to this mixed metal;

¹ A. J. Evans, *N.C.* 1891, p. 358, has already made this suggestion.

² See p. 121 above.

³ See p. 157 above.

but its employment in the West, where pure gold was used when emergency war-coinages were called for, amounted to the employment of adulterated gold¹. The idea, which enabled him to make a little go a long way, apparently appealed to Dionysius², and he produced an electrum issue in four denominations. Of the three larger, each had upon its obverse a head of Apollo carefully copied from the latest Rhégine tetradrachms, while for reverse type, one, of 7.29 grammes, had the head of Artemis **ΞΝΤΕΙΡΑ**; the second, of 3.64 grammes, an Apolline tripod [Pl. **XLIII**, 10, 11]; the third, 1.83 grammes, a lyre. A small piece, less than half the weight of the last, displayed a female head and a cuttle-fish. These coins may have been exchangeable respectively for 100, 50, 25, and 10 *litrae*, the commonest being the unit with the tripod and the legend **ΣΥΡΑΚΟΞΙΩΝ** for reverse device [Pl. **XLIII**, 11]. The types on this were extensively copied, both on the bronze issued at Rhégium³ after its restoration about 360 B.C., and at Croton after 375 [Pl. **XLIII**, 12]—that city having been reduced by Dionysius in 379 B.C. but restored four years later—as well as on the gold and silver of Tauromenium after an interval of perhaps half a century. It is indeed probable that this electrum coinage continued to be minted by Dionysius II when he succeeded his father.

G. SYRACUSE; CIVIC ISSUES

The series of tetradrachms that are characterised by the frequent use of engravers' signatures came to an end during the reign of Dionysius with the appearance of three striking pieces. The first of these is by an imitator of Kimon and Eukleidas, a man who copied his obverse from the latter's chariot type and his reverse from a decadrachm by the former [Pl. **XLIV**, 1]. Next, probably, comes a tetradrachm signed on the reverse by **IM....** with a chariot in rapid motion, reminiscent of the early work of Euainetos in Catana, and with a large exergual space below

¹ An analysis of 49 coins of this issue gives an average of about 49 per cent. gold to 51 per cent. silver; see W. Giesecke, *Sicilia Numismatica*, p. 56.

² Probably the tyrant never got any nearer than this to debasement of coinage, and we may regard the numerous tales of his shady financial manipulations (pseudo-Aristot. *Oecon.* 1349 a, b) as no more than fabrications culled from the armoury of anti-tyrannical anecdotes so popular in the fourth century B.C.

³ The head of Artemis on the 100-litra electrum piece was likewise copied on later Rhégine copper.

filled with a lion on the back of a bull. The head of the goddess upon the other side has comparatively short hair, the side-locks being rolled over a diadem visible above her forehead [Pl. XLIV, 2]¹. The third tetradrachm to be noted is a careful imitation of one of the latest decadrachms of the Euainetos type [Pl. XLIV, 4]; there is, however, no panoply in the exergue, its place being taken by the legend ΣΥΡΑΚΟΞΙΩΝ [Pl. XLIV, 5]. The date assigned with some degree of probability to these coins is about 387 B.C.², but it is more than unlikely that the issue of tetradrachms in Syracuse ceased from this time on and that they were only revived seventy years later, by Agathocles³. Indeed, were we to follow the usual theories concerning the last twenty years of the reign of Dionysius, we should have to suppose that Syracuse minted no coins at all; and this during the period of her greatest prosperity and density of population. For it is to be noted that a large portion of the Agrigentines found refuge in Gela in 406 B.C., that all these people, together with all the Geloans and Camarinaeans, were swept by Dionysius into Syracuse in 405, and that two years later he likewise compelled the whole body of Leontine citizens to migrate to Syracuse as well. A huge area was enclosed by the new fortifications, and the suburb of Neapolis within these walls served to accommodate the myriads of new citizens of a city far greater than any that Europe had yet known.

Now there are extant about 700 Syracusan tetradrachms⁴ issued during the thirty-eight years before 387 B.C., though for half that period the city must have been less than one-half the size that it attained after 403 B.C. Clearly so great a city, with a population accustomed for a century and a half to coined money, must have had a plentiful coinage during the remaining twenty years of Dionysius' reign and the first decade of his son's rule in Syracuse.

To this period, between 387 and 357 B.C., there should evidently be assigned a series of tetradrachms, of which large

¹ L. Tudeer, *Die Tetradrachmenprägung von Syrakus*, p. 168, points out that both sides of this coin are entirely different from those of the earlier signed pieces, and (p. 170) inclines to Head's view that it may be a couple of decades later. The lion subduing the bull might be an allusion to the subjugation of the Italiotes by Dionysius.

² *op. cit.* p. 287.

³ As maintained in *H.N.* p. 181.

⁴ Tudeer, *op. cit.* p. 2.

numbers survive¹, and which carry on, with but a slight modification, the blazons appearing upon the coin last described. They reproduce, as it does, a late type of Euainetos decadrachm; but the flying Nike over the four-horse chariot has vanished, her place being taken by a *triskeles*, which Dionysius now apparently adopted as symbolical of Sicily [Pl. XLIV, 6], an island sometimes known as *Trinakria*², "the Three Capes," or "Three Angles." In adopting this subsidiary device for the Syracusan coins Dionysius was, of course, laying claim to dominion over the whole island, and there exists additional evidence pointing to the fact that he did make such a claim inasmuch as he is described in certain Athenian decrees by the title 'Ruler of Sicily' (*Ἀρχὼν τῆς Σικελίας*)³. Possibly it was shortly before his second war against the Carthaginians, which began in 383 B.C., that the lord of Syracuse publicly restated this claim to all Sicily by placing the *triskeles* upon the coins⁴. Initials, perhaps those of the tyrant's mint-masters, perhaps the marks of different departments of the mint⁵, appear on most of the obverses, while under the Syracusan name on the reverse there is always a monogram, *Α*⁶. It is to be noted that bronze coins contemporary with these silver tetradrachms have on the reverse a charging bull between two dolphins, and on the obverse a head of the short-haired goddess closely copied from that on the last of the signed tetradrachms, the work of *IM*..., minted shortly before 387 B.C. [Pl. XLIV, 3, 2]. The later specimens both in silver [Pl. XLIV, 7] and bronze are of weak style and must belong to the time of Dionysius II.

That vain and incompetent tyrant, the second Dionysius, was forced to quit Syracuse in 356 B.C., when Dion, having

¹ Careful research has revealed the existence of over 200 specimens, far too many to be assigned to the first seven years of Agathocles' reign to which they have customarily been ascribed. Noteworthy is the close resemblance between our Pl. XLIV, 4 and 6.

² Thuc. vi, 2; and frequently in later writers.

³ J. B. Bury in *C.A.H.* vi, p. 118.

⁴ The second statesman to use this device was Timoleon, the third Agathocles.

⁵ The latter more probably, since there are only three groups of initials but many dies. Among the initials is *NK* which may also be read on one of the latest decadrachms. See A. J. Evans, *N.C.* 1891, p. 240.

⁶ The *Α* has a V-shaped cross-bar which finds a parallel on certain Elean coins; Seltman, *Temple Coins of Olympia*, No. 144 (ca. 420 B.C.); Nos. 194, 195 (ca. 350 B.C.). This monogram *Α* also appears on some of the Pegasus staters of Timoleon.

brought a mercenary force from Greece in the preceding year, attempted to liberate the city. The civil war which ensued had the most disastrous consequences, for the tyrant's mercenaries were let loose in the unhappy city to burn and kill. Two years later Dion himself was murdered, and during ten years of petty tyranny "the condition of Syracuse seems to have been miserable in the extreme. A large proportion of the population had perished in the constant civil strife, poverty and destitution were widespread¹." In fact the greatest city of Europe was reduced in population to the size of a large village containing some ten thousand souls². Syracuse came near to extinction, reaching a far lower ebb than even Athens did in the dark years between 404 and 393 B.C.

During twelve years, at least, the mint probably ceased to function altogether; nor need we suppose that Dion caused any money to be issued during the short time that he was at Syracuse. The mercenary force which accompanied him was small, and it took him three years to assemble it in the Peloponnese; doubtless, therefore, it was paid mainly in Peloponnesian coin. The Sicilians had to content themselves with such older money as was still in circulation, and with the unsightly issues of Punic manufacture.

H. NEW-SYRACUSE

Archias, the Corinthian, had been the original founder of Syracuse: Timoleon, likewise of Corinth, was her second founder, and as such he was ever afterwards honoured. In 344 B.C. he embarked upon what must have appeared to most men a forlorn hope; and by the late summer of 343 B.C. he had achieved such success that he was able to proceed to the settlement of Sicily, beginning of course with the revival and repopulation of Syracuse. The Corinthians made proclamation calling for fresh colonists and the response was remarkable, for it is said that a total of 60,000 new citizens, excluding women and children and therefore representing a probable 200,000 people, migrated from Greece and south Italy to Syracuse, where they were reinforced by numbers of repatriated exiles. So it came about that the city of Arethusa once more became a great state; but those who were

¹ R. Hackforth, *C.A.H.* vi, p. 285.

² Plato, *Epistle* vii, 337 c.

piously inclined must have ascribed the return of prosperity to gods other than Arethusa-Artemis, who was henceforward scarcely ever to figure on the coins. First and foremost it was Athena Chalinitis of Corinth who had shown favour, and with her Zeus the Liberator.

In 342 B.C. organisation had advanced sufficiently for a mint to be opened, a sum of 1000 talents having been realised for the treasury by the sale of deserted houses to the new citizens¹. The first dies were actually imported from Corinth, for the Corinthian φ (*Koppa*) was under the Pegasus, and the inscription $\Sigma\Upsilon\text{P}\alpha\text{-}\text{K}\text{O}\Sigma\text{I}\text{O}\text{N}$ was added to the reverse-die beside the head of Athena Chalinitis [Pl. XLIV, 8]². A Corinthian engraver then made dies, probably in Syracuse, with identical types but with the φ omitted; yet in every detail except the ethnic the pieces struck from them were essentially Corinthian staters [Pl. XLIV, 9, 10]³. Such things as tetradrachms with four-horse chariots and dolphin-surrounded goddesses were never to appear again, for they were of old Syracuse; but it was Corinth which now took the lead, so much so that the forces of the Syracusans, which were victorious under Timoleon over the Carthaginians at the Crimissus, are called "Corinthians" by the authorities⁴.

The Corinthian stater was, of course, a convenient coin in Sicily as the equivalent of ten local litrae, and it was therefore presently adopted at Leontini, liberated by Timoleon in 340 B.C., and at Rhegium [Pl. XLV, 1, 2]. The Leontine Pegasi were inscribed $\Lambda\text{E}\text{O}\text{N}\text{T}\text{I}\text{N}\text{O}\text{N}$, corresponding to certain Syracusan pieces, issued about the same time, with the legend $\Sigma\Upsilon\text{P}\alpha\text{-}\text{K}\text{O}\Sigma\text{I}\text{O}\text{N}$ [Pl. XLV, 3] instead of $\Sigma\Upsilon\text{P}\alpha\text{K}\text{O}\Sigma\text{I}\text{O}\text{N}$. Here the final *omicron* is not an archaising substitute for *omega*, but the word is a neuter ethnic adjective qualifying *δεκαλίτρον* (ten-litra piece) which has to be supplied⁵. There is fortunately in existence another series of Pegasus-coins, those of the Corinthian colony of Ambracia, which supplies confirmation for the dates, about 342 to 335 B.C., that may be assigned to the first group of

¹ C.A.H. vi, p. 294.

² W. Giesecke, *Sicilia Numis.* Pl. 15, 5, 6.

³ The letters **AI** on Pl. XLIV, 9 had appeared on some of the latest bronze coins of Dionysius II similar to Pl. XLIV, 3.

⁴ Plut. *Timoleon*, 27.

⁵ Just as some of the fifth-century coins read $\Sigma\Upsilon\text{P}\alpha\text{K}\text{O}\Sigma\text{I}\text{O}\Sigma$; supply *στατήρ*.

Syracusan Pegasi. Ambracia was garrisoned by Philip of Macedon in 338 B.C., after which date she never issued silver; and the very latest of the Ambraciote staters¹ struck just before that date have Pegasi with slightly upturned pointed wings exactly like those upon all the Syracusan, Leontine, and Rhegine pieces just described.

During the great battle in 341 B.C. at the Crimissus, when a violent thunderstorm driving rain and hail into the faces of the enemy completed their discomfiture, heaven in a very literal sense had helped Timoleon. Perhaps it was after this that a fresh series of Syracusan coins was issued with heads of Zeus the Liberator, though of course the now normal Pegasus staters were also continued. Some gold was available and, since the founder had still a campaign before him, its minting was desirable; hence there was struck a small coin of the value of thirty litrae with a fine head of Zeus, designated **ΙΕΥΣ ΕΛΕΥΘΕΡΙΟΣ**, and, upon the reverse, Pegasus and three pellets, for the coin was worth three silver Pegasi [Pl. XLV, 4]. Contemporary was a silver piece with identical types and of the weight of one Corinthian stater [Pl. XLV, 5], and a set of bronze coins all with the same god's head. The denominations of these last were distinguished by various types, a free horse, a half-Pegasus, a thunderbolt (possibly a reference to the great victory), a sepia, shell, swastika, and a triskeles [Pl. XLV, 6, 7, 8]. In displaying this last blazon Timoleon, like his predecessor Dionysius I, was claiming to represent all Sicily; or at least the claim was made for him. The heads of Zeus upon these coins were copied from Elean didrachms produced in the Olympian mint of Zeus [Pl. XXXVI, 3], for they resemble closely certain pieces struck there about the middle of the fourth century². One other Syracusan bronze coin calls for note; it has the usual Pegasus for type, but on the obverse is a helmeted bearded head, a portrait one might say, which has frequently been supposed to represent Archias, the eighth-century founder of the city³. It might, however, portray Timoleon himself wearing, like Pericles, the helmet of a *strategos*,

¹ O. Ravel, *N.N.M.* No. 37. Our Pl. XLIV, 9 and 10, resemble most closely Ravel Pl. 17, 186 to 188; and our Pl. XLV, 1 and 3, Ravel Pl. 17, 191, 192.

² cf. Seltman, *Temple Coins of Olympia*, Nos. 192 to 203.

³ The suggestion perhaps arising from a comparison with Metapontine coins portraying Leukippos, the legendary founder of Metapontum. That coinage is, however, later in date.

or at least Archias in the guise of Timoleon, the first founder with the features of the second [Pl. XLV, 9].

The rest of Greek Sicily had endured a poverty as severe as that of Syracuse, and when the other states began to mark their liberation from petty tyrants or Carthaginian masters by the issue of coins, they were mostly too impoverished to strike in any metal other than the local copper; or in the same way they employed some of the larger Syracusan bronze coins just described as blanks on which they might overstrike types of their own. This happened among others in the townships of Adranum, Agyrium, Alaesa, Enna, Eryx, Mytistratus, Silerae, and Thermae. Acragas, restored by Timoleon, never recovered its ancient splendour but issued a few little silver coins with the types of a free horse and a crab [Pl. XLV, 10].

I. TARENTUM

The Italian wars of the elder Dionysius left **Tarentum** unscathed; indeed they may be said to have advantaged her inasmuch as they weakened her rivals among the Greeks of south Italy. During these years of prosperity the city had continued to issue silver pieces of the "Horseman" type¹. Since, however, that state escaped the barbarian threats by foreign aid, the production of similar coins continued for many years more; while at the same time a new phenomenon, a gold coinage, now began to appear in Italiote numismatic history.

Before 342 B.C. the threats of Lucanians and Messapians, whose frequent employment as mercenaries in Sicily had imbued these barbarians with a taste for plundering Greek cities, became so serious that Tarentum, following the example just set by Syracuse, turned for help to her mother-city, Sparta. It was probably in that year that Archidamus, king of Sparta, son of the famous Agesilaus, crossed to Tarentum in command of a mercenary army; for, as the father had hoped to replenish the depleted coffers of the Spartan state with the Egyptian gold of Taos, so now the son might hope for a similar result from the wealth of Tarentine merchants. Lacedaemon was in dire need of hard cash, but her daughter-city could afford to be sentimental

¹ Referred to p. 119 above. See A. J. Evans, *Horsemen of Tarentum*, Pl. III.

about the whole affair. Gold reserves, of course, must be released and turned into coin, things were sufficiently serious for such a measure; but after that there was time to think of a pretty conceit for the type of the new money. On the obverse was placed a charming head of Hera with stephane and a diaphanous veil over the back of her hair¹, on the reverse the legend **TAPANTINΩN** and a podgy little boy, the child Taras, his face uplifted, his fat little arms raised in supplication to father Poseidon, who is seated, holding his trident away from the infant's reach but inclining towards the little boy a head full of sympathy and understanding [Pl. XLV, 11]. Even thus may Sparta incline paternally to Tarentum! The sentimentality underlying this whole design is deplorable.

Though Archidamus was killed in battle in 338 B.C., he had achieved enough to hold off the barbarians for a few years; but by 334 things were once more sufficiently serious to oblige the Tarentines to look eastward for aid. This time it was Alexander, son of Neoptolemus, king of Epirus, who came to their succour with a powerful army. In calling thus upon the uncle of Alexander the Great, whose ambition was to emulate in the West the exploits of his nephew in the East, the Tarentines found that they had acquired not so much an ally as a master, who, while permitting them to use some of their gold for a few autonomous coins with Hera-head and horseman types [Pl. XLV, 12]², seized most of it for his own use and struck pieces with his name and types; on the obverse the oak-crowned head of Zeus of Dodona, a town that lay in the heart of his Epirote kingdom, and on the reverse a thunderbolt and spear-head with the legend **ΑΛΕΞΑΝΔΡΟΥ ΤΟΥ ΝΕΟΠΤΟΛΕΜΟΥ** [Pl. XLV, 13]³. These like all the other Tarentine gold staters were of the Attic weight, which his brother-in-law, Philip of Macedon, had made the normal standard for gold; but the Epirote king issued silver as well, both in his own country, at Tarentum, and at Metapontum before 330 B.C., the silver being struck on the Corcyrean system which was natural to his kingdom [Pl. XLV, 14], and having types similar to those of his gold. It was perhaps fortunate for the Italiotes that the all too successful and dominating Epirote king,

¹ M. P. Vlasto, *J.I.A.N.* 1899, p. 312.

² A. J. Evans, *Horsemen of Tarentum*, p. 85.

³ cf. M. P. Vlasto, *N.C.* 1926, p. 154 ff., for a corpus of this king's coinage.

who had concluded an alliance with the Romans, fell in battle in 330 B.C. at Pandosia.

After this there were other Italian wars to distract the barbarians, who did not threaten Tarentum again till close on the end of the century. When this occurred the state made another bid for help from her mother-city, and the Spartan Cleonymus came to bring aid, while gold coin was once again required to pay his mercenaries. On this issue there appears the same head of Hera as on earlier staters, and upon the reverse the Dioscuri, honoured equally in Sparta and in Tarentum, on horse-back side by side, while their name, ΔΙΟΣΚΟΡΟΙ, is inscribed over their heads [Pl. XLV, 15].

J. THE FAR WEST

There were doubtless enterprising *condottieri* in the Hellenic cities of Gaul and Spain ready to lead to the Sicilian wars their contingents of Celtic and Iberian mercenaries, and some of these captains returning home may have brought back Sicilian pieces, which served as models for certain new coinages begun during the fourth century in the most westerly of the Greek cities.

Up till that time **Massalia**¹ had contented herself with obols for local marketing purposes, little coins with a youthful male head and a wheel for type, modelled on the obols of Syracuse [Pl. XLV, 16]. The adventurous Massaliote merchants, some of whom like Pytheas² made long voyages and were among the most daring sailors of antiquity, used bar-metal or the coins of other states for their larger transactions. In the fourth century, however, the city of Massalia began to issue drachms, the earliest of considerable beauty, with a head of Artemis crowned with a sprig of olive; the cultivation of which the Greeks had brought to Gaul, and on the reverse ΜΑΣΣΑ over a lion [Pl. XLV, 17]. These coins, which became the chief currency of southern Gaul, were extensively copied by the natives and such barbarised copies have turned up as far afield as Britain.

More or less contemporary was the introduction of an issue

¹ For the archaic coins see p. 80.

² Who circumnavigated Britain and travelled in the interior of that country. For the best account see M. Cary and E. H. Warmington, *Ancient Explorers*, p. 33 ff.

of drachms in the Massaliote colony of **Rhode**¹ in Spain. Here, as at Massalia, the prototype that inspired the head of the goddess was a Syracusan decadrachm of Euainetos, but sometimes the prototype might be one stage removed, as when a Rhodetan drachm is found to resemble a Punic imitation of a Syracusan piece. The reverse type on this money was an open rose, plucked from its stem and seen from below [Pl. **XLV**, 18]. Like the drachms of her mother-city, these coins of Rhode found countless imitators among the Celtic barbarians, who from the fourth century on grew ever more interested in the production and possession of coined money.

The time was close at hand when all Europe west and south of the Rhine and the Danube line and all Asia up to the Indus were to grow familiar with money having the images of the gods of Greece and the names of the kings of Macedon.

¹ A city in the foundation of which Rhodes had, according to some, likewise taken a hand; but this is at least doubtful; cf. G. F. Hill, *N.N.M.* No. 50, p. 6 ff.

NOTE. It appears that scholars concerned with the numismatics of the western Greeks of Italy and Sicily have at times been less ready to abandon old notions, and more chained to traditionalism, than are scholars concerned with the coins of the mainland and eastern Greeks. Anyhow, it is hard to account for the rather sluggish response on the part of some numismatists to the important rearrangement of certain Syracusan issues made by me in 1933 in the first edition of this book on p. 189 f. After this long interval I am more than ever convinced of its propriety; but rearrangements are not always liked.

CHAPTER XII

PHILIP AND ALEXANDER

THE kings of Macedon for forty years after Archelaus I, who was assassinated in 399 B.C., were of little significance in the ancient world, and the coins they struck copied the types of Archelaus with their horses and continued their Persian standard; though Amyntas III (389 to 369 B.C.) [Pl. XLVI, 1] and Perdikkas III (365 to 359 B.C.) substituted heads of Heracles for those of Ares. The chief power in the north was wielded not by the Macedonian king but by a Greek federation, which must now be considered.

A. THE CHALCIDIAN LEAGUE

A discussion of the federation of which **Olynthus** was the capital, though it might have been mentioned along with the other states which seceded from the Athenian Empire¹, has been reserved for the present chapter because its relations with Macedon far transcend in importance its relations with Athens.

The Chalcidian League took its most definite form in 420 B.C. after the peace of Nikias, and from that time on there began an issue of coinage which was minted at Olynthus, the chief city². It will be remembered that Amphipolis and Acanthus, both of which were lost to Athens about 423 B.C., proceeded soon after that date to coin on the Thracian standard (see diagram Fig. 8 on p. 151), and this same weight-system was adopted for the money of the Chalcidian League. At first tetrobols were issued having for types a laureate head of Apollo and a lyre, the latter in an incuse square, and the legend **ΧΑΛΚΙΔΕΩΝ** around the lyre; while one early coin³ has **ΟΛΥΝΘΙ** beside the god's head [Pl. XLVI, 2]. Well before the end of the fifth century tetradrachms with identical devices began to appear and continued, along with the smaller coins, until Philip destroyed Olynthus in

¹ See p. 140 f. above.

² For the coins found there (1928 and 1931) see D. M. Robinson, *Excavations at Olynthus*, iii and v. H. Gaebler has demonstrated that the coinage of the League began about 420 B.C., *Z. f. N.* xxxv, 1925, p. 210 f. See also *C.A.H.* v, p. 185.

³ *Berlin Mus. Cat. Macedon.* Pl. 5, 45.

348 B.C. On the fourth-century tetradrachms there was generally placed the name of a magistrate, who was probably annual as at Abdera and Maroneia, the name sometimes preceded by ΕΠΙ. There is a simple dignity about these coins that can be matched on the contemporary issues of only a few states, for the Olynthians employed some of the finest die-engravers of Greece. On the earlier coins Apollo has short, crisp curls, and towards the end his locks sometimes hang down the back of his neck [Pl. XLVI, 3, 4].

In 379 B.C. the short-sighted policy of Sparta enforced the temporary dissolution of the Chalcidian League, and it was possibly for this campaign that gold coins, with types like those of the silver, were issued at Olynthus [Pl. XLVI, 5], the Attic standard—not the Thracian—being employed. Later on, for the war against Philip, more gold coins, again on the Attic standard, and now with the long-haired Apollo, were struck [Pl. XLVII, 1].

B. PHILIP OF MACEDON

About 360 B.C. the economic situation in the north-western corner of the Aegean was controlled by a powerful and prosperous Olynthus employing the Thracian standard for its silver, the Attic for its gold, while a weak and distracted Macedonian kingdom in the *Hinterland* still clung to the Persian silver standard, which had been adopted half a century earlier. Then, in 359 B.C., there began one of the most remarkable reigns recorded in history, when Philip at the age of twenty-three became ruler of Macedon; for his personality dominated events in the ancient world until his death. Even while he was coping with aggressive neighbours he found time for economic affairs and promptly decided to facilitate trade with the Chalcidians by the adoption of their standard for his coins¹, the first of which were tetradrachms of Thracian weight with the head of Zeus of Mount Olympus on the obverse and upon the reverse the king's name in the genitive, ΦΙΛΙΠΠΟΥ, over a bearded horseman wearing petasos and cloak and raising one hand in salutation. This figure almost certainly represents the king himself [Pl. XLVI, 10].

¹ There can be no doubt that Philip got his standard from the Chalcidians; see A. B. West in *N.C.* 1923, pp. 169 to 220. This article supersedes all earlier theories about the coinage of Philip.

Now in the year in which Philip became king of Macedon, the Thasians founded **Crenides** at the foot of the Pangaeian Mount on the mainland opposite their island in order to gain control of the rich gold mines of that region. There they began to mint gold staters of Attic weight with a head of Heracles, a tripod and the legend ΘΑΣΙΟΝ ΗΓΕΙΡΟ ("of the Mainland Thasians") [Pl. **XLVI**, 6]. In 357 B.C., however, Philip took Amphipolis near by and in the following year Crenides, where he settled large numbers of his own subjects, renaming the town Philippi. The gold staters continued to be issued with types unchanged, but in the name of Philippi, ΦΙΛΙΠΠΩΝ [Pl. **XLVI**, 7], and some silver pieces of the Chalcidian-Thracian standard were likewise produced. Thus Philip gained possession of the richest gold mines in southern Europe, which presently produced an annual revenue of a thousand talents. The possession of wealth such as no state west of Asia had hitherto owned induced the regular issue of a gold coinage, for which Philip naturally adopted the Attic standard already employed at Philippi and Olynthus. But, since his Philippian subjects supplied the staters, he contented himself with issuing smaller denominations in his own name. These were half, quarter, and one-eighth staters, all with the Philippian Heracles-head for obverse, and with a half lion, a club and bow, and a club as their respective reverses [Pl. **XLVI**, 8, 9].

The year 356 B.C., which saw Philip's acquisition of the gold mines, was the year of Alexander's birth and of the victory of the king's race-horse at the Olympic Games. The last event gave rise to a fresh type upon the silver coins many of which, both tetradrachms, didrachms, and fractions, now had for reverse type a naked boy-rider with the victor's fillet round his brows and holding a palm-branch [Pl. **XLVI**, 11 to 14]. If the horse's proportions appear at times to be those of a Clydesdale rather than a Derby Favourite, this is because the die-engravers were more familiar with the heavy chargers of the Macedonian cavalry than with the blood-stock of Greece. The heads of Zeus upon these tetradrachms have often an Olympian dignity comparable with those on the fourth-century didrachms of Olympia and Megalopolis [Pl. **XXXVI**, 3, 4; **XXXV**, 8]. Tetradrachms with the older reverse type of the king on horseback probably continued to appear alongside of the new types.

At last, about 350 B.C., Philip was in so strong a position that he could afford to dispense with the existence of the Chalcidian League, the traders of which were now merely a hindrance to the prosperity of the merchants of Macedonia. He threw off the mask of friendship and proceeded to the capture and destruction of one Chalcidian city after another. In 348 B.C. he took and razed Olynthus, whose beautiful coinage came to an end. Its obverse device, however, was perpetuated by the destroyer himself, for it was apparently only now that he began to issue the celebrated gold *Philippeioi*, of Attic weight like the last Olynthian gold staters. The long-haired Apollo-head of these was transferred to the first of Philip's gold staters¹, while upon the reverse there was placed a two-horse racing-car and the name ΦΙΛΙΠΠΟΥ in the exergue [Pl. XLVII, 2, 3, 4]. The gold, like the silver, was marked with the small adjunct symbols of mint-magistrates. On the subsequent issues of the gold staters, which Philip struck in very large numbers, down to his death in 336 B.C., Apollo was short-haired.

The *Philippeioi* quickly overspread the Greek world and were as popular in the West as in Greece proper and the Near East. Hoards have been found in northern Greece, Corinth, and the Peloponnese, in south Russia, near Constantinople, in Asia Minor, Cyprus, Syria, and Egypt, as well as in south Italy, and particularly in Sicily. Their popularity in the last region is further attested by the fact that the Syracusan tyrant Agathocles imitated their types in 317 B.C. for his gold drachms of Attic weight [Pl. XLVII, 5]. Moreover, they appear to have been largely used by the enterprising merchants of Massalia, a circumstance which gave the types a long new lease of life. Eagerly the Celts of Gaul seized upon these coins and with equal eagerness set about imitating them at a time when the Gallic realm of the Arverni was both extensive and powerful². Up the Rhône they passed into Switzerland, where the Helvetii made copies so intelligently that the word ΦΙΛΙΠΠΟΥ was still legible [Pl. XLVII, 6]. More barbarous were the copies of these last produced in Würtemberg, Alsace, Baden, and the Palatinate, and equally strange the gold and electrum pieces of Gauls who dwelt round

¹ The more worn of the *Philippeioi* in the Prinkipo gold hoard, the burial of which is dated by K. Regling (*Z. f. N.* xli, 1931, p. 43) to 335-334, were long-haired, confirming the suggestion that they preceded the common short-haired type.

² For the new discoveries about these coins, see NOTE p. 215.

Paris and in Normandy [Pl. XLVII, 7]. The head of the god acquired a great wig of stylised hair, the chariot and the second horse vanished, while the charioteer might become a nightmare monster sprawling over the one remaining horse, which sometimes acquired a sub-human head, and the barbarian's natural *horror vacui* caused him to fill all the availing space with strange ornaments of local significance, like the solar wheel, the Celtic boar, or the god Ogmios with his strings of human heads¹. At last the Britons acquired some of these Gaulish staters and proceeded to make their own curious versions. Characteristic of the Bellovaci were the coins on which the god wears a *perruque* that might have graced a courtier of Queen Anne, while his wreath has become a kind of cable [Pl. XLVII, 8]. The rude inhabitants of south-western England² perverted some of the baser Gallic versions until nothing but a broken-down wreath and some lines were on the obverse, and a set of vertical strokes, pellets and crescents represented the horse [Pl. XLVII, 9]. Finally in Yorkshire there is a mere typeless bulge for the head, four crescents for the horse's neck and body, its head an isosceles triangle [Pl. XLVII, 10]. That is the strange tale of how the beautiful fifth-century head of Apollo, created when Olynthus broke away from the Athenian Empire, ended up in first-century Yorkshire as a blob.

For the remaining twelve years of Philip's reign there was no change in his coinage, the bulk of which probably came from the mint of Pella, though there must certainly have been other subsidiary mints, of which the most productive was at Amphipolis. There is, however, one issue of coins, struck in Greece, which is intimately associated with Philip and must now be considered.

The quarrels between Delphi and Amphissa in 339 B.C. were the cause of the Amphissan war, which brought Philip down into Greece with a large professional army. The following year at the battle of Chaeronea the levies of Thebes and Athens fought the last fight of the city states for independence. Philip, of course, took the side of the Delphians against the people of Amphissa, for it was part of his policy to pose as the champion of Pythian

¹ Lucian, *Heracles*, 1 ff.; Roscher, *Lexikon griech. u. röm. Mythologie*, iii, p. 682; F. Koepp, *Bonner Jahrbücher*, 125 (1919), p. 38 ff.

² Within a rough triangle between Oxfordshire, Sussex, and Cornwall.

Apollo. Nominally no more than a member of the Amphictyonic Council, he in reality controlled it completely. In the winter of 339 B.C. he procured the appointment of a College of Treasurers of the temple funds, seeing to it that his friends carried most weight¹. In the spring of 335 B.C. this college issued coins, no longer with the Delphian name but inscribed **ΑΜΦΙΚΤΙΟΝΩΝ**, "of the Amphictyons." The standard was the Pheidonian, for that was the most convenient in Central Greece; the obverse bore a head of Demeter, corn-wreathed and veiled, the goddess of Anthela where the Council held its winter meetings; on the reverse was Apollo in long, sleeved chiton, seated upon the sacred omphalos, a tall branch of bay-laurel in his left hand, his right elbow resting upon the lyre which stands beside him, his right hand supporting his chin [Pl. **XLVI**, 15]. To our eyes he appears as a tired and pensive god, looking with foreboding to the near future, when but a few months ahead that Greece of independent cities, which had grown up round his shrine and had so often been guided by his oracle, was to come to an end for ever on the battle-field of Chaeronea. For long indeed the old order had been decaying, and with its end there passed away something of immeasurable value and significance. Yet none can deny that there were compensations; for the death of the old order was necessary to the birth of the new, of that great world which came into being under the genius of Alexander.

C. ALEXANDER

The historian who attempts to deal faithfully with Alexander and who seeks to gain some insight into the man's character, the ruler's genius, must reach a point when he begins to feel something of the awe which beset his contemporaries and which filled the East for centuries after his death². Even the cynic who may hasten to point out his terrible temper must admit the rarity of its outbursts and the force of the indomitable will which almost always controlled it. As great a soldier as Julius Caesar or Napoleon, he was devoid of the sensuality of the Roman or of the Corsican's duplicity. Alexander stands above all the great

¹ *C.A.H.* vi, p. 260.

² See W. W. Tarn in *C.A.H.* vi, p. 434 ff. and indeed the whole of Chapters XII and XIII for the most recent and brilliant account of Alexander. Also U. Wilcken (transl. G. C. Richards), *Alexander the Great* (1932). The former scholar is better acquainted with the numismatic evidence.

men of the past, supreme as soldier, ruler, organiser, as the clear thinker, the mystical dreamer who is also the intensely practical man of action; and he was equally brilliant as an economist. It is mainly this aspect of his personality that we can study through his coinage.

First the new types which Alexander introduced may be considered, next the standard employed, thirdly his mints. He had been present with his father at the Congress of the Greek Allies, which the latter summoned to Corinth late in 338 B.C. Among these allies was Athens, which Philip was especially anxious to conciliate, a policy continued by his son. There Philip propounded to them all his scheme for the liberation of the Greeks of Asia and for a war of retaliation on Persia¹. In the late summer of 336 B.C. Alexander, now king of Macedon, was elected General of the League, in Philip's place, for the invasion of Asia. It was probably with his headship of the League and his benevolence to Athens in mind that he adopted the new types for his gold, issuing staters and some double staters in that metal. The head of Athena wearing a triple-crested Corinthian helmet and with archaic locks appears to be a free copy of the bronze Athena Promachos by Pheidias², while the reverse type was a forecast of victory to come, Nike holding a wreath and a ship's *stylis*, or naval standard, the name ΑΛΕΞΑΝΔΡΟΥ in the field [Pl. XLVIII, 1, 2]. Though the king himself probably did not attend the Greater Panathenaia of 336 B.C. honours were heaped upon him, and it is remarkable that an almost identical Nike is depicted on the dated Panathenaic amphorae given as prizes in that year³. This goddess appears on the vases because at that time some of the golden figures of Nike, which had originally commemorated the victory over Persia at Salamis and had been melted for coin in 407 B.C.⁴, were restored. Alexander, attracted perhaps by the symbolical value of these figures and eager to return the compliment to Athens, which had conferred honours upon him, adopted a similar Nike for his gold. This was politic, for he needed the aid of the Athenian fleet against Persia, and

¹ C.A.H. vi, p. 267 f.

² P. Lederer, *Z. f. N.* xxxiii, 1922, p. 185 ff., has suggested that the prototype was of Attic workmanship, subsequent pieces being struck in Macedon.

³ E. Babelon, *Rev. Num.* 1907, p. 1 ff. and Pl. II. See M. H. Swindler, *Ancient Painting*, fig. 347. The last Nike was restored in 331/0; W. S. Ferguson, *The Treasurers of Athena*, p. 123.

⁴ See p. 138.

it was congenial to his own enthusiasm to adopt coin-types that had a kind of Panhellenic significance.

The same Panhellenic idea is apparent in the types selected for his silver, which followed directly on the last issues of his father¹. On the obverse is Heracles, greatest of the Greek heroes²; on the reverse the greatest of gods, Zeus Olympios enthroned, an eagle on his outstretched right, a sceptre in his left hand, behind the god, **ΑΛΕΞΑΝΔΡΟΥ**, in the field the symbol of a monetary magistrate [Pl. **XLVIII**, 3]. Though introduced in 336 B.C., these types were destined to appeal equally to Greeks and to Oriental subjects of Alexander as yet unconquered; for the Phoenician was to see in the obverse type his own god Melqart, the Cilician was to regard the seated deity as the great Ba'al of Tarsus, and the Babylonian, though he might not be able to read the Greek name of Alexander, was to look on pictures that might recall his own Gilgamesh, the lion-slayer, and the figure of Bel-Marduk, god of Babylon. When it is realised that, next to Macedonia, the greatest mints of Alexander were to be established precisely in Phoenicia, Cilicia, and Babylon, the uncanny foresight that the king showed in the selection of these types becomes apparent.

Philip had employed the Attic standard for his gold, the Thracian for his silver. His son discarded the latter, and struck silver as well as gold on the Attic system, issuing tetradrachms, a few didrachms, drachms, and fractional coins, as well as bronze money of account. This measure was in a sense a compliment to Athens but was based on sound economic principles. Athens owned the only silver mines in Greece proper and was issuing more coins than any other Greek state; and, just as the youthful Philip had adjusted his coinage to the Olynthian, so now the youthful Alexander linked his up with Attic commerce. In consequence the lesser local systems, Pheidonian, Thracian, and even the far-flung Persian, gradually faded out; only the Chian, employed by the Rhodians, kept its place in spite of the Attic.

By adopting the same standard for both metals Alexander replaced the bimetallic system of Persia by monometallism,

¹ The same magistrate's symbols appear on Philip's last and Alexander's first issues.

² Heracles was also mythical ancestor of the Macedonian kings, who traced their descent back to the Heraclid Temenos (Hdt. viii, 138; Thuc. ii, 99). Isocrates bases a great appeal to Philip on this fact: *Philippus*, 109 ff.

and this proved exceptionally convenient since the old Asiatic ratio of $13\frac{1}{2}$ to 1 no longer prevailed. The growing abundance of gold had lowered this to 12 to 1; and, when the treasures of the Persian cities were thrown upon the world's markets, the ratio fell as low as 10 to 1, so that you gave ten Attic silver drachms for one Attic gold drachm.

Before studying the history of the Alexander mints a word may be said about the countless magistrates' symbols appearing on the money. At one time these adjuncts were thought to be the little devices of cities¹, and this belief led to the fallacy of distributing the coins among an impossibly large number of mints. That view has, however, been abandoned², and the little symbols have been proved the devices of magistrates. In the mint of Amphipolis, the most active by far in the whole empire, three³, and sometimes four, monetary magistrates were in office at the same time; in Pella, generally only one; and, as Alexander advanced into the East and established the mints for his coins, he usually left untouched the local system for marking magisterial responsibility that he happened to find already in operation.

The history of the mints of Alexander's empire can give us a brilliant picture of the tremendous scope of his conquests, of his skilful employment of a uniform coinage as one means towards fostering the amalgamation of races, and of his grasp of the economic problems of his day. Beside this coinage that of even the largest city states before his time, like Athens or Syracuse, or that of the Persian Empire itself, seems to dwindle into insignificance. Such was the wealth dug from the mines of Macedon, and released from the royal treasuries of Susa, Persepolis, and Pasargadae that many a merchant or soldier might acquire and deposit underground a great fortune of Alexander

¹ For example by L. Mueller, *Numis. d'Alexandre le Grand* (Copenhagen), 1855.

² In consequence of the brilliant work of E. T. Newell, whose principal studies of the Alexander coinage are the following: *Reattribution of Certain Tetradrachms of Alexander the Great*; *Alexander Hoards*, *N.N.M.* Nos. 3, 19 (this the most important), 21, 39; *Tarsos under Alexander*, and *Myriandros-Alexandria Kat'Isson*, in *A.J.N.* lii, liii; *Some Cypriote Alexanders*, *N.C.* 1915; *The Dated Alexander Coinage of Sidon and Ake*. My account of the various mints is based on these publications.

³ It is to be noted that Athens in the second century adopted the system of three magisterial colleagues, while the Roman Republic had "tresviri aere argento auro flando feriundo."

coins. One such it was who buried a hoard, unearthed some years ago near Demanhur in Egypt, containing something like seven thousand Alexander tetradrachms hailing from almost every mint in the empire.

D. THE MINTS OF ALEXANDER

The twenty principal mints fall into eight major groups and may be taken in sequence from West to East.

I. The European Group. Alexander had inherited from his father as the two principal royal Macedonian mints, Pella and Amphipolis; but, whereas Philip had treated the capital as the more important, his son made Amphipolis, close to the gold and silver mines, the headquarters for his European coinage. During eighteen years over 700 obverse-dies and about 1300 reverse-dies¹ were employed for silver tetradrachms in that one mint alone. In view of the enormous issues from the Amphipolitan mint, not only of silver but of gold—for the most common Alexander gold coins [Pl. **XLVIII**, 1, 2] are of that city—it is wiser to discard the story² that Alexander was heavily in debt when he started for Asia, especially as the most trustworthy authority, Arrian, does not allude to this. It added a romantic flavour to the tale that Alexander entering Asia should appear like the poor boy entering the great unfriendly city with half a dollar in his pocket. But it was not the truth. The coins rather indicate that the mines of Macedonia contained as much potential capital as the vaults of the Great King's palaces.

The products of the major mints at least are easily distinguishable, even when the coins are not marked by initial letters, like **ΔΑ** and **Σ** at Damascus and Sidon, or **Μ** (for Metropolis) at Babylon. In Amphipolis, for example, the tetradrachms are of a distinctive type [Pl. **XLVIII**, 3, 4] and show a steady progression in style. Moreover they are closely bound together, group to group, by interlinking dies³, and prove the existence of a board of three or four magistrates. At Pella, the second European mint [Pl. **XLVIII**, 5], the style and symbols

¹ If a die could on the average produce 10,000 coins, this would mean an issue of about 13 million from one mint. Even the flourishing mint of Syracuse only used about 280 obverse- and 340 reverse-dies, in a period of about 140 years.

² Plut. *v. Alex.* xv; W. W. Tarn, *C.A.H.* vi, p. 360; U. Wilcken, *Alexander the Great*, p. 78 f.

³ E. T. Newell, *N.N.M.* No. 19, p. 65 ff.

continue those of Philip's coins¹; and the tetradrachms, though less abundant than those from Amphipolis, are bound together in series by interlinking dies, as are all the Alexander issues.

The third important mint of Europe was opened about 330 B.C. at Sicyon by Alexander's viceroy, Antipater, after he had pacified the Peloponnese.

II. The Anatolian Group. In 334 B.C. Alexander crossed into Asia² and defeated the army of the satraps sent to oppose him at the Granicus. This brought under his rule the satrapy of Dascylium, which in the past had relied mainly on the Greek money of Lampsacus for its coin. Now the Lampsacene gold and silver came to an end, and the city became the site of a royal Macedonian mint issuing gold and silver with Alexander-types. The next to fall was the Sardian satrapy and its capital, which had been a royal Persian mint issuing darics and shekels. Alexander coins now took their place, while the Macedonian passed on south and then east. It was some years later, when the satrapies of Caria and Lycia were properly organised, that imperial issues began to appear at Miletus [Pl. **XLVIII**, 6] about 330 for Caria, and at Side about 328 B.C. for Lycia and Pamphylia.

III. Cilicia. In 333 B.C. the army of Alexander entered Tarsus, the most flourishing satrapal city of Asia Minor, the seat of government of Mazaeus, who now joined Darius in Syria. Here it is possible to observe how the first Attic-weight tetradrachm of Alexander followed, after an interval of days only, on the last Persian-weight stater of the satrap Mazaeus. The Mazaeus coins had had for obverse type a seated Ba'al Tars on a throne without a back, a sceptre in his left hand, a bunch of grapes and an ear of corn grasped in his outstretched right [Pl. **XLVIII**, 7]. Now the very engraver who made this die was employed, and all he had to do was to transfer his god to the coin's reverse, to twist his right hand up a little, omit the grapes and ear, and in their place to engrave an eagle on the god's hand [Pl. **XLVIII**, 8]. No other change was needed, save to add the name of Alexander and to prepare a Heracles-head die for the

¹ *loc. cit.* p. 71 ff.

² At the spot where he left Europe, and at the place where he disembarked in Asia, he set up altars to Zeus, Heracles and Athena (Arrian, *Anabasis*, xi)—the very deities which figure upon his coins.

obverse. Never was a more simple or effective transition. Tarsus, the chief Cilician minting-place, became the third greatest mint of the empire, a token of its tremendous commercial importance, employing in fifteen years about 70 obverse- and over 300 reverse-dies for silver tetradrachms alone. Gold staters of the Athena-head and Nike type were also issued.

IV. The Syrian Group. A few months later exactly the same change took place in the chief port of the Syrian coast, the terminus of the great trade route from Babylon to the sea, Myriandros, which the king renamed Alexandria ad Issum¹. Mazaeus under Darius III had been satrap of Cilicia and Abernabra (i.e. Northern Syria) and had caused this double title to be inscribed in Aramaic on some of his Tarsian issues. At Myriandros he had struck Persian staters with a Ba'al Tars for obverse, closely resembling the god on the coins from his other mint; and on the reverse, a lion walking over earth or sea, or sometimes prowling through the sky [Pl. XLVIII, 10], the Syrian lion of Bambyce and Commagene². After the battle of Issus in October 333 B.C. the coins of Mazaeus ceased to appear, the same engraver being employed, exactly as at Tarsus, to make dies for the new Alexander tetradrachms of Alexandria ad Issum [Pl. XLVIII, 11]. Here, however, gold staters were not minted. Damascus was the second large Syrian mint, and it distinguished its tetradrachms by the addition of the letters ΔΑ to the type [Pl. XLVIII, 12].

V. The Cypriote Group. Early in 332 B.C., having received the surrender of all the great Phoenician cities except Tyre, Alexander was joined by the united fleet of the Cypriotes led by King Pnytagoras of Salamis. The people of Cyprus, indeed, seem to have welcomed with enthusiasm the change from a Persian to a Macedonian Empire, and to have proceeded to a voluntary abolition of their old Persian-weight coins, and to the adoption of Attic weight and Alexander types. The dynasts of Salamis and the city of Citium began these issues about 332, and two years later the king of Paphos followed suit, while about 328 Amathus joined in the production of similar coins. In their style these

¹ Now Alexandretta, or Iskanderun. The renaming may not have taken place immediately.

² Compare the lion from Nimrud Dag in north Syria, F. Sarre, *Die Kunst des alten Persien*, Pl. 55.

Cypriote pieces were influenced by the tetradrachms issued in the mainland ports opposite the island.

VI. The Phoenician Group. No less than four big cities began, all of them about 332, to issue Alexander tetradrachms and gold staters. Tyre was not among them, for it alone resisted the king and was destroyed: hence Sidon became the leading city of Phoenicia and dated its coins [Pl. **XLVIII**, 9, 13] by the new era of which the year 1 was the year of the battle of Issus. Akē began a mint which was at least as prolific as that of Sidon in both gold and silver; the third was at Aradus, which added some letters of the city's name, first in Phoenician, then in Greek script, to its coins. The fourth mint, at Byblus, was of less importance and its issues were apparently not of such long duration as those of the others.

Alexander passed on into Egypt and the Oasis of Ammon, where in accordance with the Egyptian custom, he was hailed as a god. In Egypt he founded Alexandria; but a city of the magnitude that he planned would take several years to build and would not immediately have need of a mint, the opening of which was inevitably delayed.

In July of 331 the king was in Mesopotamia, where the decisive battle of Gaugamela in October put an end to the Persian Empire of Darius. It was just about this time that a significant change took place in the gold staters issued from the mints of Sidon [Pl. **XLVIII**, 9] and Akē. The serpent of Athena Promachos was displaced by the Persian lion-headed horned griffin, a monster always conceived of by Greeks as the enemy *par excellence* of the Persian¹. To every Greek soldier who received such a coin as pay there was thus visible an emblem significant of the attack on the Persian royal power.

The Macedonian advanced on Babylon which was surrendered by the competent Mazaeus, the only able general among the Persians. He was rewarded with the satrapy of Babylon, the first Persian appointed by Alexander to such a post. His powers, however, were only those of a civil governor, for a Macedonian commanded the garrison and finance was under a separate administration. In one way the position of Mazaeus was, however, unique; inasmuch as he was the only satrap permitted to issue

¹ G. F. Hill, *Alexander the Great and the Persian Lion-Gryphon*, J.H.S. xliii, 1923, p. 156 ff.

coins, apparently for the convenience of the Babylonian traders, who had grown accustomed to the Ba'al and lion pieces that the same governor had formerly struck at Myriandros. These types were continued for a while in Babylon, but economic policy dictated the employment of the Attic, instead of the Persian standard [Pl. **XLIX**, 1].

VII. **Babylon.** This mint of Mazaeus was, however, but a small affair compared to the Alexander mint which was now opened and became, next to Amphipolis, the second mint of the empire. In the space of thirteen years this Babylonian mint employed over 170 obverse- and 500 reverse-dies. Gold and silver in a variety of denominations, but principally of course staters and tetradrachms were coined, the funds being supplied from the royal Persian treasures; for Alexander followed up the occupation of Babylon by the capture of Susa, Persepolis, and Pasargadae, between which he secured at least 180,000 talents¹. Of these he despatched 2000 to Antipater in Macedon to swell the issues of the Amphipolitan mint.

The Alexander coins of Babylon were marked with the letter **M** [Pl. **XLIX**, 2, 3, 4], standing for *Metropolis*², appropriate enough since the great city in truth became for a time the metropolis of the civilised world. It was the focus of land routes and sea routes from India and Bactria *via* Ecbatana, from Arabia and the Persian Gulf, from the Mediterranean *via* Tarsus, Myriandros, and the Euphrates; and it lay at the very centre of the empire, which extended from the Adriatic to the Indus.

The fugitive Darius making for the mountains south of the Caspian Sea in 330 was murdered by his own companions, and Alexander found himself without a rival and by right of conquest Great King of the Persian Empire. Within a year the title "King" began to appear upon his coins, first at Alexandria ad Issum, whence it was quickly adopted by the mint of Citium in Cyprus. A year later the title crops up on the issues of Aradus and Amathus, and then Side follows suit. But the three greatest mints of the empire were slow to add **ΒΑΣΙΛΕΩΣ** to **ΑΛΕΞΑΝΔΡΟΥ**, for at Tarsus it only appeared about a year before his death, and at Babylon [Pl. **XLIX**, 3, 4] and Amphipolis about

¹ Nearly £44,000,000 at par. *C.A.H.* vi, p. 383.

² Already in Xenophon the word has the modern significance of "capital," rather than "mother-city."

325 B.C. [Pl. XLVIII, 4]. It was the first time that the royal title was inscribed upon money minted in Macedon. Even so Amphipolis was on the kingdom's fringe, and the money of the Macedonian capital, Pella, continued to bear the simple unadorned name of Alexander (see diagram Fig. 9, p. 217).

VIII. **Alexandria.** In 331 B.C., when Alexander was in Egypt, he marked out the boundaries for the greatest of all the Alexandrias, which he founded on the shore near the village of Rhakotis. The city was subsequently laid out by Deinocrates on a grand scale with avenues and streets at right angles to one another, like Piraeus and Olynthus before it, and like the great modern cities of our day. Besides the surveying and building, the population for the city had to be assembled; and from the coins we may conclude that five years elapsed after the selection of the site before the city was sufficiently advanced to require a mint, for the earliest of the Alexander tetradrachms were struck there about 326 B.C. During the first eight years of its existence there were employed in the mint about 45 obverse- and 150 reverse-dies, showing an activity approximately equal to that of the mint at Tarsus. To make the dies for these coins some of the most skilled engravers must have been summoned from Greece, for the tetradrachms are often of remarkable excellence, and the head of Heracles has frequently the features of Alexander himself, appropriately so, since he was the divine Founder of the city [Pl. XLIX, 8]. From its beginnings Alexandria bade fair to be one of the chief art centres of the Hellenistic world, a promise duly fulfilled under the Ptolemies¹.

The twenty principal mints of Alexander's empire have now been briefly considered and their foundation and development may be conveniently studied in tabular form [Fig. 9]², it being borne in mind that they nearly all continued the minting of Alexander coins for years after Alexander's death.

In 330 B.C. Alexander set out on his long travels and campaigns in the east of his empire, and by the early summer of 327 he started from Bactria (Balkh) *via* Kabul and the Khyber Pass for northern India, reaching Jhelum in the June of 326 B.C. Crossing the Jhelum river³, he defeated in a great battle the

¹ Compare the cameos of Alexandrian workmanship.

² p. 217.

³ On the identification of the site see Sir Aurel Stein in *The Times*, 15 Apr. 1932 and *Illustr. London News*, 23 Apr. 1932, p. 615.

army of the Indian Rajah Porus, whose main fighting arm was a force of two hundred elephants, Porus himself being taken prisoner. At last the Macedonians had gone far enough, and Alexander sailed down the Indus to the Ran of Cutch, and so back by land through Gedrosia, Carmania, and Persia to Susa, which was reached in the spring of 324 B.C. Here he was occupied for several months with the organisation of the vast empire before he moved up to Babylon. Moreover in that year he was deified, by and for the Greek world only as a political measure¹.

Perhaps it was now that two remarkable coins were struck in the Babylonian mint, and sent to Susa, where Alexander had arranged to pay off arrears and to settle the army's debts²—a procedure that must have required large quantities of coin. The first of these coins was a decadrachm in silver with types exactly like those of the normal tetradrachms of the Babylonian mint [Pl. XLIX, 5]³. Here there was evidently nothing commemorative, and the size of the coin will have been dictated by convenience. But certain other silver decadrachms⁴ were issued with distinctly commemorative types, intended perhaps for the higher ranks. On the obverse the artist has given his version of the battle by the Jhelum river; Alexander on horseback attacking with his lance the Rajah Porus riding upon an elephant; a second person, the driver of the elephant, turns to throw a javelin at the attacker, and holds two others in reserve in his right hand; above is the magistrate's letter **Ξ**. Upon the reverse is Alexander as a god; he wears a Greek cuirass and sword, a Macedonian cloak, and on his head a composite helmet; it is the Persian *kyrbasia* with a Greek helmet-crest between two tall plumes, like the very crest and plumes which Plutarch⁵ describes the king as wearing; in his right hand is a thunderbolt, in his left a spear; a Nike flies towards him with a wreath for his head; below is **BAB** in monogram for Babylon [Pl. XLIX, 6, 7]. It is to be remarked that an almost identical Nike occurs as a symbol

¹ *C.A.H.* vi, p. 433.

² *ibid.* p. 417 f.

³ It corresponds to tetradrachms dated by E. T. Newell, *N.N.M.* No. 19 (p. 60, 4325-) to ca. 326, but may be two years later.

⁴ The only two extant specimens are in the British Museum, *B.M. Quarterly*, i, p. 36 f.; *N.C.* 1927, p. 204 f. It is improbable that the coin was struck after Alexander's death, for there could hardly have been an occasion for this issue except just after the Indian expedition.

⁵ *Alex.* xvi, 4.

on tetradrachms of Babylon dated to about the year 324 to 323 B.C.¹ [Pl. XLIX, 3].

While the great mints with their uniform issues of staters and tetradrachms stand for the co-ordination of the empire, this decadrachm seems a fitting symbol of the manifold energies and power of Alexander himself. The many aspects of his government have been defined in telling terms: "In Egypt Alexander was an autocrat and a god. In Iran he was an autocrat but not a god. In the Greek cities he was a god but not an autocrat. In Macedonia he was neither autocrat nor god but a quasi-constitutional king...; in the Amphictyonic League a man who owned two votes²." Of this the coin comes near to being an epitome, for there is the thunderbolt of Zeus to link him with Ammon and Egypt, the royal Persian headdress for Iran; Nike Stephanephoros links him with the Greek cities, from the greatest of which he had borrowed her for his first staters; and for Macedon he figures as the cavalry leader, on horseback like the king on the coins of his ancestor the first Alexander and of his father Philip. It was the man that had been crowned at the Panathenaia of 336 B.C. and, ten years later, had conquered the elephant battalions of the Punjab, who caused this coin to be struck in the very heart of his empire, a few months before he died of fever in Babylon at the age of thirty-three.

His generals, as the future was to prove, were an assembly of kings with abilities far beyond those of most men. Yet without him they were lost. To such an extent did his personality still dominate their minds that for nearly twenty years no one dared to change even the types of the Alexander coinage³. That personality Asia felt as she has felt no other, so that even to the present day one of the great heroes of Islam is Alexander of the Two Horns, *Iskander Dhulcarnein*, whose portrait [Pl. XLIX, 9] Lysimachus was later to place upon his coins.

After ranging through the coins of the many city states of Greece, the historian who applies himself to the Alexander issues will gain perhaps a better idea of the genius of one of the supreme forces of history. Were nothing surviving of the man save these

¹ E. T. Newell, *N.N.M.* No. 19, p. 62, nos. 4432, 4465. The Nike on the tetradrachms will have been copied from the one on the decadrachms.

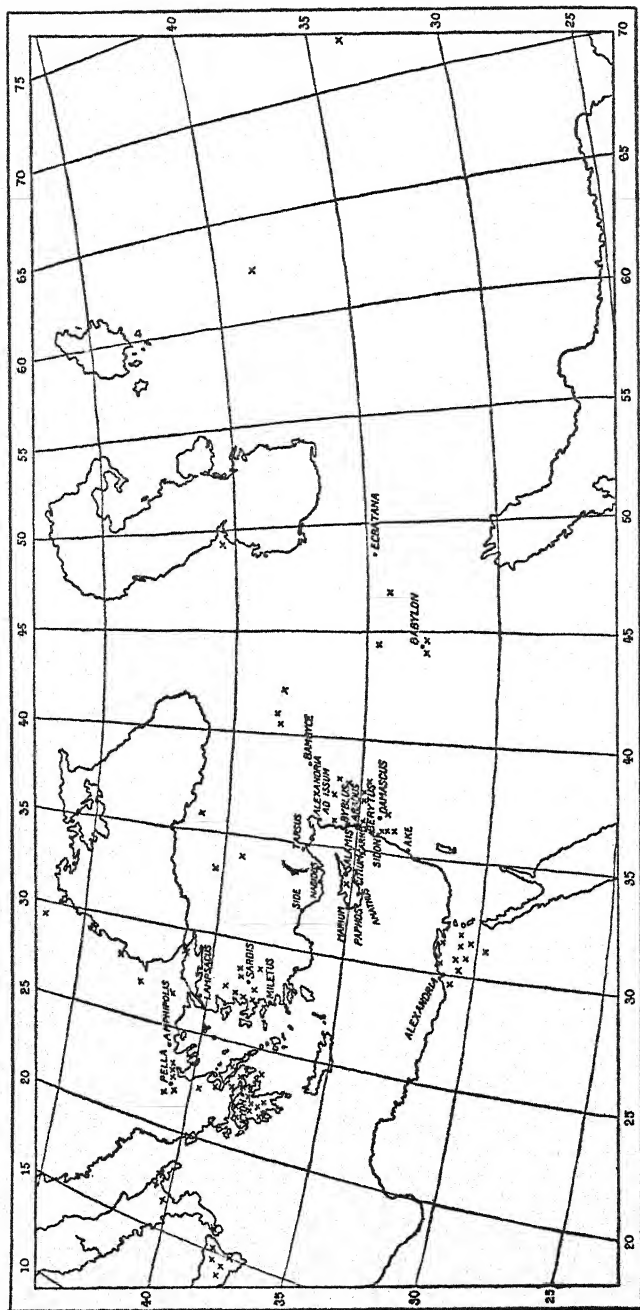
² W. W. Tarn, *C.A.H.* vi, p. 432.

³ Except Ptolemy I in Egypt; but it took him almost ten years to venture

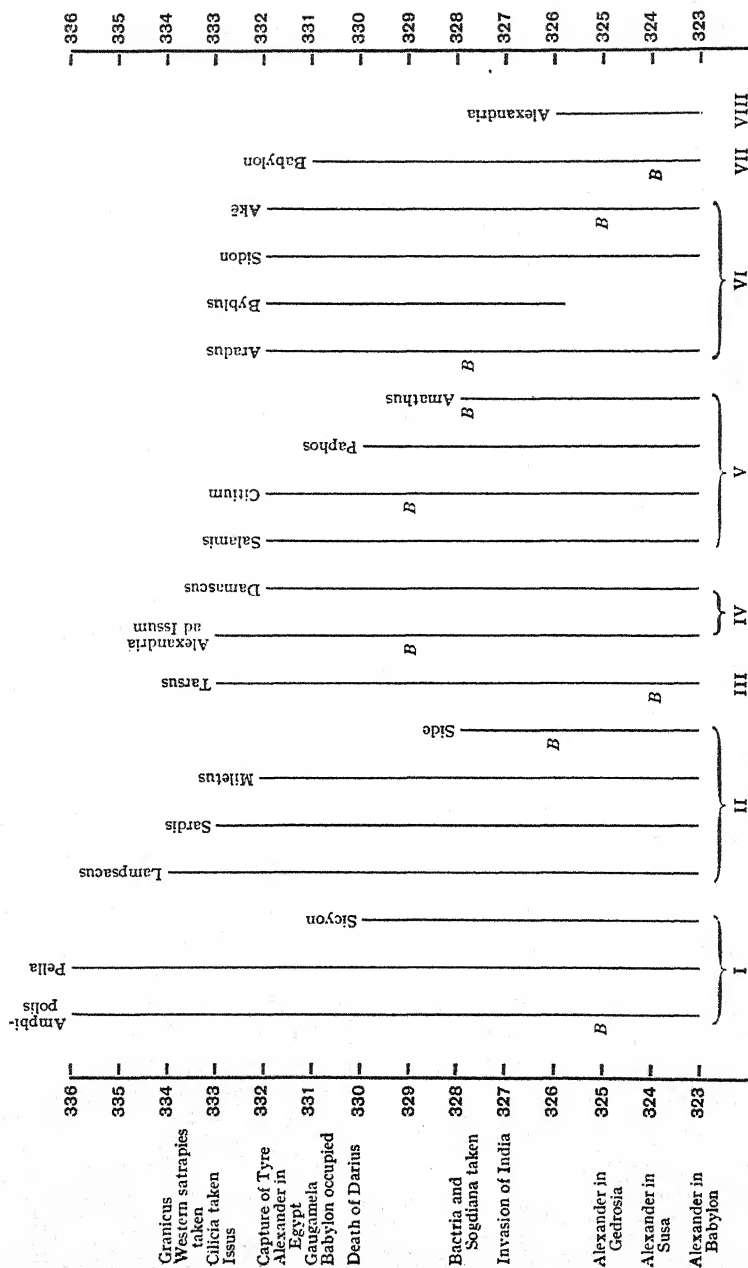
great hoards¹ containing his coins scattered over Europe, Africa, and Asia, we should still perceive that here had been one who lifted the civilised world out of one groove and set it in another. The coins alone tell us that Alexander started a new epoch.

¹ See map on p. 216 where eighty-one recorded hoards are marked. The details are to be found in S. P. Noe, *A Bibliography of Greek Coin Hoards*, *N.N.M.* No. 25, p. 240 ff., to which add hoards from Azerbaijan, Corinth, Prinkipo, Salonika 1929, and Taxila (*Illustr. London News*, Dec. 1926, p. 1105).

NOTE. It is now known that the golden *Philippeioi* did not, as assumed on p. 201 above, travel to central Gaul by a Marseilles-Rhone route, but directly from Rome under circumstances of considerable interest. Between the years 194 and 167 B.C. the Roman Republic fought and conquered Philip V of Macedon, the Galatians and Antiochus III of Syria. Livy (Books 34, 52; 37, 59; 39, 5, 6; 45, 39) records the amount of booty in the form of gold *Philippeioi* brought back to Rome by the victorious generals, and it adds up to no less than 876,256 such gold coins. The soldiery must have pillaged and brought back many myriads more, while a fair proportion of the huge indemnities exacted from the Hellenistic kings will also have been paid up in coin. As a consequence of all this the gold *Philippeios* in its millions was adopted into the Roman currency and circulated freely. Passages in Plautus' later comedies give full support to these facts (G. C. Brooke in *N. C.* 1933, p. 90 ff.; also Seltman in *R.E.* xix, 2196 ff., article *Philippeioi*). In 121 B.C. Fabius Maximus defeated the Arverni and Allobroges in central Gaul, whereupon there was formed a kind of Roman Protectorate, with the Aedui and Sequani as Allies. At this point the Central Gauls became acquainted with the gold *Philippeios* and promptly copied it. Before long the Belgae, who had recently entered northern Gaul, were imitating the Gallic copies. Finally coinage was introduced to Britain by the first Belgic Invaders about 75 B.C.



Map C. The mints of Alexander's empire. × Recorded hoards containing coins of Alexander.



The letter *B* indicates the dates at which the title *Basileus* was first adopted in certain mints. Dates are to be regarded as approximate to within about 12 months.

Fig. 9. The twenty principal Alexander mints operating during his life-time.

CHAPTER XIII

THE MACEDONIAN AND SELEUCID KINGDOMS

SUCH was the confusion which followed on the death of Alexander that the selection of a successor to his empire was a matter of despair. Among his generals there were too many great men, too many equals to permit of any one Macedonian being set over the heads of the others. The outcome was the appointment of two kings to succeed Alexander, two chosen deliberately for their utter helplessness—an idiot and an infant still unborn.

The former was the epileptic Arrhidaeus, an illegitimate son of Philip II, who was given the throne-name, "Philip III"; the latter was Alexander's son whom Roxane presently bore and who was named Alexander IV.

The generals and satraps, who administered and soon divided up the empire among themselves, continued the issue of Alexander coins for these two kings. Some bore the name of Philip, most of them that of Alexander; and both the Athena-head and Nike, and the Heracles and Zeus types remained, unchanged in every satrapy save Egypt, for about nineteen years. At first it was the force of Alexander's personality continuing to make itself felt after his death which prevented anyone from daring to change the types. After a while however the cumulative effect of the vast Alexander coinages, including posthumous issues, was so great that many nominally free Greek cities continued to mint tetradrachms of Alexander type for centuries, right down to the age of Mithradates the Great. Such late pieces are easily distinguished from fourth-century issues, for though they have the Macedonian blazons and the king's name, they are struck on broad, thin flans [Pl. LVII, 8].

Cassander, son of Antipater, secured after an interval the guardianship of the two kings, who were transferred to Macedon. There in 317 B.C. the fierce Olympias, the aged mother of Alexander the Great, murdered the idiot Philip in the interests of her small grandson, who thus became sole king. Henceforward only Alexander's name appeared on the coins, and Ptolemy in Egypt replaced the lion-scalp covered head of Heracles by that

of Alexander of the Two Horns wearing on his head the scalp of an elephant [Pl. LVIII, 2]. The Egyptian issues that followed must, however, be considered later.

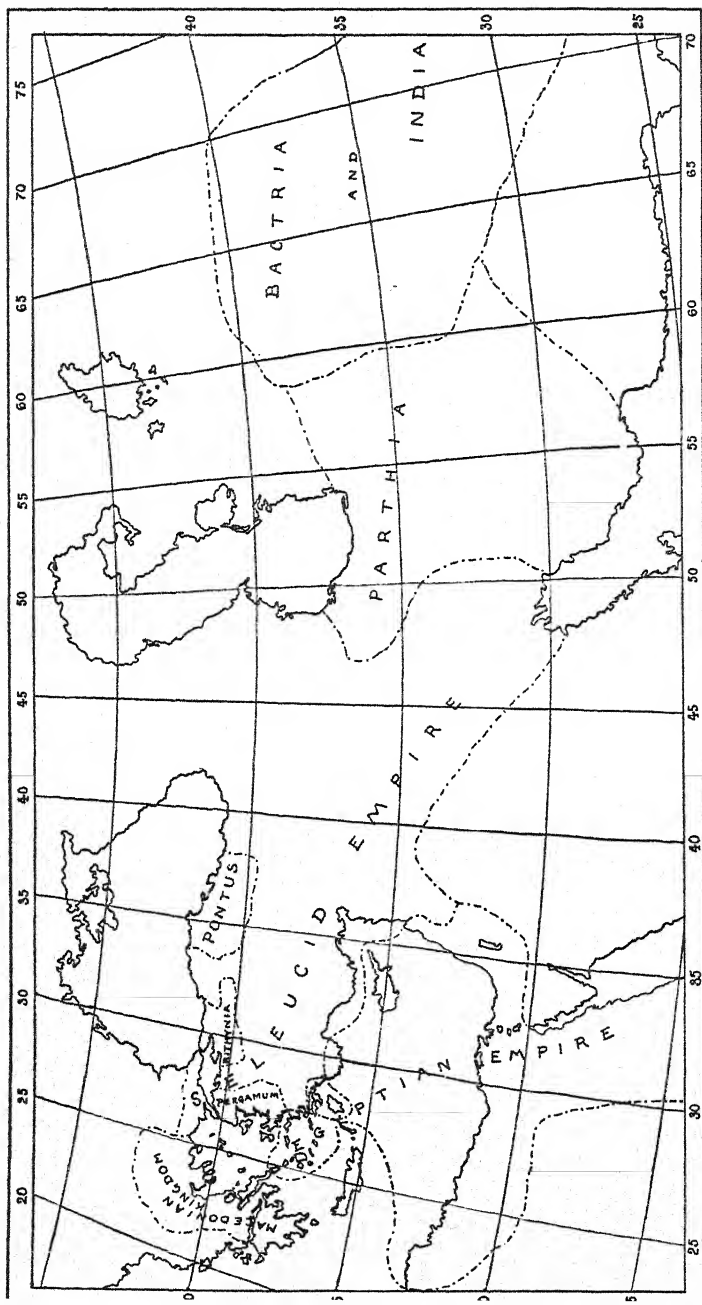
In 310 B.C. Cassander murdered the young Alexander IV, but though there was now no king even in name he continued the coins. From the mint of Pella, however, he also issued, as his father acting for Alexander the Great had done before him, posthumous tetradrachms with the horseman types and name of Philip II [Pl. L, 1] which were intended for circulation in the Balkans. The native tribes there preferred these coins to all others, and the tetradrachms passed thence up to the Danubian region, where they were extensively imitated by the Celts of that district [Pl. L, 2].

A. THE HOUSE OF ANTIGONUS

Antigonus the One-eyed, one of the most brilliant of Alexander's generals, had secured for himself a large slice of the Asiatic dominions of the empire, and attained the height of his power as the result of the brilliant naval victory gained by his son, Demetrius the Besieger, in 306 B.C. off Salamis in Cyprus over the fleet of Ptolemy I. Immediately Antigonus and Demetrius assumed each the title of king, and their opponents were not slow to follow suit. Ptolemy of Egypt, Seleucus of Babylonia and Syria, Cassander of Macedon, and Lysimachus of Thrace all had taken the royal title and set their names on the coinage by the following year; and perhaps about 304 B.C. they began to devise new types. Thus it was Demetrius the Besieger that broke the spell for the rest, though his father Antigonus, who had fought under Alexander, never ventured on any change of types nor, while he lived, permitted his son to make any alteration¹. Cassander too had known Alexander, and indeed it was said of him that he could never pass a statue of the conqueror of Asia without trembling. Though claiming kingship himself, he shrank from changing the types of gold or silver, but struck bronze with a head of Heracles, a jockey crowning his horse and **ΒΑΣΙΛΕΩΣ ΚΑΣΣΑΝΔΡΟΥ** [Pl. L, 3].

Lysimachus king of Thrace had been one of the most trusted members of Alexander's staff; and, though he now proceeded to

¹ For the numismatic history of Antigonus and Demetrius see E. T. Newell, *The Coinages of Demetrius Poliorcetes*.



Map D. Approximate boundaries of the Hellenistic kingdoms in the second half of the third century.

replace the royal coinage by gold and silver of new types, he made the change in such a way that it implied far more of worship for the memory of Alexander than of flattery for himself. The new obverse type was a magnificent portrait of Alexander as a king and as a god. There is the upward gaze, the royal diadem, the curving ram's horn of Ammon springing from the brow; the finest portrait head on any Greek coin¹. The reverse blazon was not worthy of the obverse; Athena seated, her elbow resting on her shield, her right arm extended to hold a small Nike, who places a wreath upon the initial letter of Lysimachus' name [Pl. XLIX, 9]. This might be termed a quaint conceit, but it is not really in good taste; and indeed the two sides of the coin illustrate well both the virtues and the demerits of Hellenistic art, the brilliance of its portraiture, and, with a few rare exceptions, the cheapness of its allegorical efforts. Gold staters and tetradrachms, both of Attic weight, had the same types, and were minted in Thrace, in Asia Minor after 302 and in Macedonia after 288 B.C.

The great battle of Ipsus in 301 B.C., where the four other kings overwhelmed Antigonos who died fighting at the age of eighty-four, completely altered the balance of power. His son **Demetrius** now found himself without a kingdom, but he still held Cyprus and command of all the Eastern Seas, for he alone possessed a fleet in being. Antigonos, faithful to the tradition of Alexander, had refused to allow the use of new types; but Demetrius, now his own master, proceeded to coin at Salamis for the payment of his fleet tetradrachms, the types of which were a triumphant record of his victory there five years before and a bold claim to the dominion of the seas.

Now after the overwhelming victory off Cyprus Demetrius must have set up there a great statue of Nike upon a prow, holding in her left hand a naval standard and throwing back her head to blow a blast upon a long trumpet held in her right, a subject which was to tempt imitators in the future; chief among them the Rhodians², who set up the famous Nike now in the Louvre. But the Besieger's figure was in one respect better than the Samothracian marble Nike who stood upon the prow of the victor's flagship. Demetrius represented her as having just

¹ At least on those tetradrachms that were minted in Ionia.

² See below p. 253 f.

alighted upon the broken bows of his enemy's war galley, for on every one of his numerous coins with this type the up-curving beak of the ship is smashed off¹. The reverse of Demetrius' coin represents his patron deity Poseidon, naked, seen from the back, brandishing his trident, a small *chlamys* wrapped round his left arm, the legend **ΒΑΣΙΛΕΥΣ ΔΗΜΗΤΡΙΟΥ** in the field [Pl. L, 4].

The ruthless Cassander died in 298 B.C. and four years later Demetrius, after the customary intrigues, was welcomed as king of Macedon, secured the heritage of Philip II and Antipater, and established the Antigonid dynasty on the throne of Macedon. Promptly the mints of Amphipolis and Pella began the issue of coins for the new king, and by about 292 B.C. new types were produced for the tetradrachms. On the obverse a portrait head of Demetrius, the first portrait of a living man to appear on a European coin². Alexander had been represented by Lysimachus with a ram's horn; Demetrius, thirsting for divine honours, now caused himself to be portrayed with a horn as well, the bull's horn of Poseidon *Taureos*, whose son he claimed to be³. The reverses of these portrait coins show Poseidon either seated, or standing with one foot upon a rock [Pl. L, 5]. Most of the gold staters were of the Alexander type, but with the name of Demetrius [Pl. L, 7]; some, however, had his horned portrait, and, as a reverse blazon, the old royal Macedonian horseman [Pl. L, 6]. Towards the end of his reign the king also opened royal mints at Thebes, Demetrias, and Chalcis.

Demetrius the Besieger was succeeded after an interval by his eldest son **Antigonus**, nicknamed "knock-kneed⁴," who had been born about 320 B.C. when his father was a youth of seventeen. Antipater and Cassander were his maternal grandfather and uncle; yet, in spite of this dubious heritage, Antigonus proved not only the best king of Hellenistic Macedon, but the best of any of the successors of Alexander.

The great invasion of the Balkans and Greece by the Gauls in 279 B.C. provided Antigonus with his opportunity; and,

¹ E. T. Newell, *The Coinages of Demetrius Poliorcetes*, p. 35 ff.

² Unless the bearded head of a *strategos* on the large Syracusan bronze of ca. 340 B.C. represents Timoleon himself; see p. 193. Portraits of satraps and dynasts had, of course, frequently occurred before this on Eastern coins.

³ *op. cit.* p. 72 f.

⁴ *Gonatas* = *Lat.* *geniculosus* = *geniculatus*. W. W. Tarn, *Antigonus Gonatas*, p. 15, note 1.

whereas other kings had failed, he inflicted a crushing defeat upon the barbarians in 277 B.C. at Lysimachia, when it was alleged that the god Pan had spread his panic terror among them. Promptly the Macedonian army elected Antigonos as king, and the new coinage of tetradrachms which he introduced bore a type commemorating the victory over the Gauls. On the obverse was a Macedonian shield with the lunate design and stars characteristic of this type of circular buckler, in its centre a head of the god Pan, a small goat's horn springing from his forehead, the *nebris* round his neck and the *lagobolon* or 'throwing stick' over his shoulder, the god who had thrown the Celts into panic in the great battle. On the reverse was the legend **ΒΑΣΙΛΕΩΣ ΑΝΤΙΓΟΝΟΥ** and an archaistic figure of a fighting Athena, a shield in her left, a thunder-weapon in her upraised right hand [Pl. L, 8]. This type of goddess had first been adopted by Ptolemy I [Pl. LVIII, 2] about 314 B.C., copied by Agathocles and Pyrrhus in Sicily [Pl. LX, 5, 12]¹ and by Demetrius the Besieger on a few of his coins. As for the head of Pan, on a few of the coins this is given the features of King Antigonos himself and his royal diadem²; once the king's name and title is inscribed around this Pan-portrait of himself. Horns were the fashion among the earlier Hellenistic monarchs: Ptolemy I and Lysimachus had represented Alexander with the ram's horn of Ammon; the divine Arsinoë wife of the second Ptolemy wore it also; Seleucus the First and Demetrius the Besieger were portrayed on their coins with the horns of bulls; and now came Antigonos the Knock-kneed with the horn of goat-kneed Pan.

Two other events to be recorded in this reign are, first the fact that about 262 B.C., having placed Athens definitely under Macedonian supremacy, he apparently put an end for a while to

¹ See pp. 240, 246 f.

² (Imhoof-Blumer, *Monnaies Grecques*, p. 130.) The view that these heads afford the only surviving likeness of the king was supported by Tarn, *op. cit.* p. 174. In *C.A.H.* vii, p. 107 the latter scholar inclines to a theory put forward by F. Studniczka (*Jahrb.* 1923-1924, pp. 64-110) that a figure on a fresco from Boscoreale near Pompeii (now in the Metropolitan Museum, New York) of a young man with a Macedonian shield before him (*C.A.H.* *Plates*, iii, 168 a) is Antigonos. I find it impossible to agree, for Studniczka's suggestion is a mere guess. Even were the young man in the fresco named, which he is not, the evidence of the tetradrachm, which is official, contemporary, and Macedonian, is infinitely to be preferred to a theory about a privately produced painting in the first-century house of an Italian. The person on the painting bears no resemblance to the king on the coin, therefore the former cannot be Antigonos.

the issue of tetradrachms by that city¹. The second event was the king's great naval victory over the fleet of Ptolemy II off Cos in 258 B.C.² The battle was fought during the Isthmian games, and his flagship, which was named *Isthmia*, had been vowed by Antigonos to Apollo at Delos in the event of victory. To celebrate his recovery of his father's dominion of the seas he now issued new tetradrachms with the head of Poseidon, and on the reverse Delian Apollo holding a bow and seated on the prow of the flagship which is inscribed ΒΑΣΙΛΕΩΣ ΑΝΤΙΓΟΝΟΥ [Pl. L, 9]. This was a coin worthy to set beside his father's tetradrachms commemorating his naval victory off Cyprus.

Finally it is to be noted that the king, who died at the age of eighty after a reign of nearly forty years³, kept up the tradition of his grandfather, Antigonos the One-eyed, by issuing coins of Alexander type [Pl. L, 10, 11], both tetradrachms and gold staters⁴.

No coins can be certainly attributed to the two next Macedonian rulers, Demetrius II son of Antigonos, and Antigonos the Liberal⁵, guardian of Philip son of Demetrius II. Their reigns were not long, and it is possible that they contented themselves with the issues of tetradrachms with Alexander's types and name, for many such pieces of this period survive, but they must have relied mainly on the numerous coinages produced by the Greek states and Leagues that were dependent on Macedonia.

In 221 B.C. Philip V became king at the age of seventeen⁶ and for the first twenty years of his reign pursued the methods of his predecessors. Economically, in fact, he seems to have had no policy whatever; and, while he wasted the energies of his kingdom in petty wars, he allowed the Macedonian and Pangaean silver mines to fall into complete neglect.

Too late the folly of this became apparent when Philip in 201 B.C. found himself faced with the prospect of war with Rome. It was then that he endeavoured to repair his past

¹ See p. 259.

² W. W. Tarn in *C.A.H.* vii, p. 713, and Note on p. 862 concerning the date of this battle.

³ For the fullest account of this remarkable reign see Tarn's brilliant study cited in footnote 4, p. 222.

⁴ E. T. Newell, *Demetrius Poliorcetes*, p. 14. These are certainly his, not his grandfather's, as I once suggested.

⁵ This must be the meaning of his nickname *Doson*, cf. Plut. *Coriol.* 11.

⁶ For his character see Tarn, *C.A.H.* vii, p. 763.

neglect by the issue of silver tetradrachms¹, on the reverse of which was placed the same archaistic figure of a fighting Athena that had been the device of his grandfather Antigonus. On the obverse of these coins is a very fine portrait of the king, bearded and diademed [Pl. LI, 1].

At the battle of Cynoscephalae in 197 B.C. Philip met with a crushing defeat at the hands of the Aetolians and Romans, and in the following year Titus Quinctius Flamininus at the Congress of Corinth proclaimed the Freedom of Greece. This was the occasion on which certain gold staters were struck by the Greeks in his honour. The head on the obverse of these was inspired by the head of King Philip but represented the Consul Flamininus himself, the oldest contemporary portrait by far of a famous Roman, bearded, with a true Roman nose, a little unkempt beside the polished king of Macedon, portrayed with an almost uncomplimentary realism. The reverse type is that of the Alexander gold, Nike holding a wreath; but she is placing this upon the Latin name, **T. QVINCTI**, of Flamininus [Pl. L, 12].

Philip realised by 186 B.C., from the overbearing attitude which the Roman Republic persistently adopted towards him, that he must prepare for another conflict with Rome. With this end in view he began a wholesale reorganisation of his kingdom, reconditioned the neglected silver mines, and reopened the mints of Amphipolis and Pella. Tetradrachms, didrachms, and smaller pieces were struck in quantities, the first having new types; on the obverse a Macedonian shield, as on the coins of Antigonus, the centre bearing a head of King Philip in the guise of the hero Perseus with a cap of Phrygian type, winged and griffin-headed; on the reverse is the club of Heracles in an oak-wreath, the royal name and title, magistrates' monograms and a variable symbol [Pl. LI, 2]. The sudden adoption of the Perseus type is remarkable and is to be explained² by the king's personal cult of the hero. Unlike the marriages of his predecessors, Philip's had been dictated not by politics but by his affections, for he had married an Argive woman of undistinguished family for whom a pedigree had to be invented. Her descent was accordingly traced from

¹ A. Mammoth, *Z. f. N.* xl, 1930, p. 277 in an article on the coinage of this king would assign this first issue to 212 B.C., supposing it to commemorate the Illyrian campaigns. But the war with Rome is more likely to have called forth this issue.

² *op. cit.* p. 285 f.

the hero and mythical king of Argos, Perseus; and Philip not only adopted the cult but gave to his eldest son the name of Perseus. The didrachms and subdivisions have the diademed head of the king and a reverse like that of the tetradrachms.

There was little diminution of the coinage, when King **Perseus** succeeded his father in 179 B.C., since the struggle with Rome was fast approaching. Even the same mint-master, Zoilos, who had begun about 183 to sign the coins of Philip V, continued to set his name or monogram upon those of the son until about 173 B.C. The mints were still at Amphipolis and Pella; the types, a portrait of King Perseus and an eagle upon a thunderbolt within an oak-wreath [Pl. LI, 3]. During the war against Rome, begun in 171 and ending in 168 B.C. with the disaster of Pydna and the capture of the king of Macedon by Lucius Aemilius Paullus, the standard was reduced by one-twelfth from the original Attic weight.

The kingdom was split up by the Romans into four **Macedonian Regiones**, which after an interval were allowed to mint their own coins about 158 B.C. The first *Regio* and the second, in their respective capitals, Amphipolis and Thessalonice, issued tetradrachms of Attic weight, in type reminiscent of those of Philip V. In place of the king's capped head there was now a head of Artemis in the centre of the shield, while beside the club of Heracles within an oak-wreath was inscribed either **ΜΑΚΕΔΟΝΩΝ ΠΡΩΤΗΣ** or **ΜΑΚΕΔΟΝΩΝ ΔΕΥΤΕΡΑΣ** [Pl. LI, 4, 5].

One last attempt there was against the domination of Rome, when in 149 B.C. a man who appears to have been a natural son of Perseus¹ rallied his countrymen and became **Philip VI** of Macedon. The coins that he struck resembled those of his grandfather, the fifth Philip, but the young man was represented without a beard though with the cap of Perseus [Pl. LI, 6]. On his defeat in the following year Macedonia became a Roman province and the last of the House of Antigonos adorned a Roman triumph before he was strangled in the Tullianum.

After the collapse of Macedon the control of the silver mines seems to have passed to the states of **Maroneia** and **Thasos**, for after 148 B.C. they both began to issue large quantities of big, flat tetradrachms. The first took Dionysus, the second Heracles

¹ *op. cit.* p. 279.

as a reverse; and both had for obverse type a Dionysiac head of singular unattractiveness [Pl. LI, 8, 7]. These coins won great popularity among the barbarians of the Danube basin, whose crude imitations were sometimes less repellent than some of the prototypes.

B. THE HOUSE OF SELEUCUS

Seleucus I, surnamed Conqueror, had been one of Alexander's most brilliant cavalry officers and obtained the satrapy of Babylon shortly after the king's death. Ousted for a time, he regained the metropolis in 312 B.C., from which year the Seleucid era was dated, and gradually extended his empire until by 282 B.C. it stretched from the Aegean to the Indus. Thus of all the Successors he ruled the largest part of what had been the dominions of Alexander.

His two principal foundations were Seleucia ad Tigrim and Antiochia ad Orontem, both destined to be important mints; indeed, Antioch was, with Alexandria, to be one of the two greatest mints of the Hellenistic age. His first issues however emanated from Babylon, where he continued the Alexander coinage, though, perhaps about 312 B.C., he began to set his own personal seal in the field beside the figure of Zeus [Pl. LII, 1]. This device was an anchor, adopted by Seleucus because he had on his thigh an anchor-shaped birth-mark.

Like the other Successors, Seleucus took the royal title in 305 B.C. but did not at first change the Alexander types, though he began to substitute his own name for that of Alexander, while on some coins Zeus, in place of an eagle, held a Nike, an allusion to his surname Nikator. The coins of Alexander type lasted through his reign and that of his son alongside of other issues.

In 302 B.C. Seleucus concluded a treaty with the powerful Indian king Chandragupta, bartering whole provinces for five hundred war elephants. These animals proved the decisive factor next year at the battle of Ipsus, which was followed by a great increase of the Seleucid realm and by the foundation of Antioch in 301 to 300 B.C. Possibly the first issue of the Pergamene mint¹ is to be identified in certain rare tetradrachms with the bust of a horned horse on one side and on the reverse an Indian

¹ The attribution to Pergamum of these magnificent coins and to the year 281 B.C., is fully discussed by E. T. Newell, "The Pergamene Mint under Philetærus," *N.N.M.* No. 76. The dies may have been made by Ephesian engravers.

elephant, the legend **ΒΑΣΙΛΕΩΣ ΣΕΛΕΥΚΟΥ** and a small anchor below [Pl. LII, 2]. Like the anchor, the horned horse and the elephant became henceforward dynastic badges of the Seleucidae; the pachyderm, of course, because they greatly favoured the employment of that arm in the battle line; the horse perhaps in memory of Alexander's charger¹, Bucephalus or "Bull-head," which died in India and was honoured by the foundation there of a town named Bucephala.

The head of Bucephalus proved very popular in the eastern provinces of the empire, and was presently imitated on coins issued in Bactria, which grew to be one of the most flourishing countries, since it appears that a considerable Greek and Macedonian population had been left there by Alexander. On the Bactrian coins and on staters and silver tetradrachms, the head of the horned horse is on the reverse, and on the obverse a diademed head of Seleucus with a bull's horn over his ear [Pl. LII, 4, 5]. Here in central Asia there is no allusion to Poseidon as there was in the case of that great admiral Demetrius the Besieger, but rather the horn is a favourite oriental symbol for kingship. As such it is employed in the Book of Daniel², where the horned ram is the Persian Empire, the terrible "he-goat from the west" is Alexander from whom spring four notable horns, the kings of Macedon, Thrace, Egypt, and Syria, until out of the last came the "little horn," Antiochus Epiphanes the persecutor of Jerusalem.

Seleucus has a horn on another issue of coins, which represent his head in a close-fitting Attic helmet with cheek-pieces down and decorated with an ear and a bull's horn. The reverses of these show a figure of Nike placing a crown upon a trophy [Pl. LII, 3], a blazon apparently copied from a tetradrachm of Agathocles, king of Syracuse, struck about 304 B.C.³ Some of these were minted in Susa, some of them in Persepolis. Farther east still an Iranian satrap named Sophytes⁴, ruler in the Oxus region, engaged a Greek die-engraver to make him coins. The splendid portrait-head of the ruler on the obverse of these pieces wears an Attic helmet resembling that of Seleucus;

¹ For a full discussion and an alternative theory see E. Babelon, *Rois de Syrie*, p. xxiii ff. Pl. LII, 4, 5, were minted at Bactra and Carrhae.

² Ch. viii (ca. 166 B.C.).

³ See p. 246.

⁴ See R. B. Whitehead, *N.C.*, 1943, p. 60 ff.

on the reverse are a cock, a caduceus and the ruler's name, which in Greek is rendered as **ΣΕΛΥΤΟΥ** [Pl. LV, 6].

Antiochus I, son of Seleucus, became joint king with his father in 293 B.C., the son administering the eastern provinces with Seleucia as his seat of government. There he issued tetradrachms and drachms with a head of Zeus and a fighting Athena in a car drawn by either two or four elephants [Pl. LII, 6], some in the name of Seleucus, some in his own name, others in the names of both of them as joint kings. Certain pieces with these types were minted farther east; they are not on the Attic, but on the Indian standard.

The bewildering diversity of early Seleucid coin types became simplified when **Antiochus I** became sole king in 281 B.C.; for, though the types of his father were continued in the East, the king's western dominions were gradually accustomed to a more uniform coinage, having the ruler's portrait on the obverse and a seated god on the reverse. At first this god was Apollo, the deity from whom the Seleucids claimed descent, sitting upon the omphalos, holding a bow and arrow [Pl. LII, 7, LIII, 2]. Antiochus who took the name of Saviour after a victory over the Gauls in Asia Minor, associated his son **Antiochus II** Theos, "the god," with himself in 266, and the latter became the sole king in 261 B.C. In Asia Minor both kings issued some tetradrachms, which, in place of Apollo, had a seated Heracles for type [Pl. LII, 9], while on some of the later coins of Hierax from the same region his head was adorned with a winged diadem [Pl. LII, 8]. In Bactria before 250 B.C. coins were struck for Antiochus II with a figure of a fulminating Zeus [Pl. LIV, 8].

Under **Seleucus II**, 246 B.C., son of Antiochus "the god," Apollo was represented as standing instead of seated, but on the coins of his son, the third Seleucus, the Apollo type of Antiochus I was restored for his three years' reign, 226-223 B.C. The activity of the Antiochene mint can be traced from this period down to the date of the dynasty's collapse. Even at this period, however, the "ramshackle empire" was beginning to fall to pieces; India, Bactria, Parthia, Armenia, and the Hellespontine region which had become the kingdom of Pergamum were all lost. Now it fell to the lot of the next king, the second son of Seleucus II, **Antiochus III** surnamed the Great, to make a gallant attempt to regain some of the lost provinces. His success in this venture

was offset by the misfortunes which befell him in consequence of his coming into conflict with Rome.

The chief western mints of Antiochus were at Antioch and Tyre¹, the first operating from the beginning of his reign in 223, the second after he took the city from Ptolemy in 201 B.C. The types employed were his portrait encircled by a fillet-border, and Apollo seated upon the omphalos [Pl. **LIII**, 1]; however a special issue in Ecbatana about 205 B.C. commemorated his eastern campaigns by a revival of the handsome elephant-type, which the founder of the dynasty had originated [Pl. **LIII**, 3].

Seleucus IV "Father-loving" succeeded his father in 187 and continued the Apollo type; but, when he died in 175 B.C., the succession should have passed to an infant named Antiochus, a circumstance that would have anticipated by thirty years the trouble which later arose about infant kings. Now Seleucus IV had a brother of energetic character, who promptly seized the reins of power and was proclaimed king as **Antiochus IV**, though he treated his little nephew as joint king with himself and issued state documents in the name of the two Antiochi. From the Antiochene mint Apollo-type tetradrachms were issued for both kings, the reverses being identical, but the portrait sometimes that of the uncle, sometimes that of the nephew [Pl. **LIII**, 4, 5]. Then in 169 B.C. the baby Antiochus was quietly removed by the hand of fate.

The power of the kingdom was greatly increased by this king, who seized the opportunity, while Rome was involved in war with Perseus of Macedon, to make a great attack on Egypt. He occupied the country from Memphis to the sea and almost captured Alexandria. At the last moment Rome, having dealt with Perseus, intervened; and Antiochus was cheated of his prize, but not of his prestige. Before he started on his campaigns he had come to look upon himself as the great champion of Hellenism in the East and was determined to civilise his oriental subjects by focussing their worship on the greatest of the gods, Zeus Olympios, whose great temple in Athens he had begun to build after his residence there as a young prince. Zeus, Jupiter, Ba'al, Ahura Mazda, Yahweh were all one god and King Antiochus his viceregent, who now presented himself before his people as the Divine manifest and effective in the flesh. Apollo vanished

¹ E. T. Newell, *N.N.M.* No. 10.

from his coins, Zeus Olympios took his place and beside him the inscription **ΒΑΣΙΛΕΩΣ ΑΝΤΙΟΧΟΥ ΘΕΟΥ ΕΠΙΦΑΝΟΥΣ ΝΙΚΗΦΟΡΟΥ** "of King Antiochus, god manifest, bearer of victory" [Pl. **LIII**, 6]. A gold and ivory reproduction of Pheidias' Olympian masterpiece was set up in the great temple of Apollo at Daphne near Antioch, while at Jerusalem in the Holy of Holies there was also placed a figure of Zeus Olympios, "the Abomination of Desolation," as the Book of Daniel has it¹. It was a great idea that one god should be the composite of all the local gods, the supreme divinity and protector of the Syrian kingdom; but in that polyglot realm with its multiple *Baalim* it was a vain hope that the idea should find acceptance.

Antiochus "god manifest" ordered a magnificent festival in 167 B.C. as a triumphal celebration of his Egyptian campaign and struck special coins for the occasion. There were gold staters with types like the current tetradrachms and in addition four-drachm pieces with new types in honour of Apollo, ancestor of the House of Seleucus, and of Zeus Olympios. Antiochus was ready to be thought of in the character of either god, though Zeus was his favourite, and on these coins he appeared as both. On their reverses are his full titles and upon one tetradrachm the statue of Apollo of Daphne by Bryaxis, upon the other the copy of the seated chryselephantine Zeus that he had placed in Apollo's temple. On the obverse of the first the head of Apollo of Daphne; on that of the second, the bearded head of the Olympian, both gods having the features of King Antiochus himself [Pl. **LIII**, 7, 9]. Large bronze coins were also issued at this time in Antioch², coins which reproduced the types of contemporary Ptolemaic Egyptian bronze pieces and which constituted a subtle assertion of his claim to the throne of Egypt as well as of Syria [Pl. **LIII**, 8; **LIX**, 5].

The sudden death of the king in 164 B.C. left the throne to an infant of nine, known as Antiochus V, but murdered after two years by his cousin **Demetrius I**, son of Seleucus IV, who had actually a truer claim to the throne. His first acts were to regain the Babylonian provinces, in which the satrap Timarchus had endeavoured to set up an independent kingdom, and to take the title of *Soter*, or 'Saviour.' The new reverse introduced by Demetrius, whose portrait appeared on the obverse of his money,

¹ Ch. xi, 31.

² E. T. Newell, *The Seleucid Mint of Antioch*, p. 24 ff.

was a seated figure of Tyche [Pl. LIV, 1], and his chief mints were in Antioch, Seleucia ad Tigrim, Tyre, and Babylon. Many of his coins bear dates reckoned by the Seleucid era.

A young man named **Alexander**, surnamed Balas [Pl. LIV, 2], claiming to be a second son of Antiochus IV, was placed on the throne by the help of Ptolemy VII and Attalus II of Pergamum in 150 B.C. Demetrius himself perished, but he had taken the precaution to send his two little sons Demetrius and Antiochus into a place of safety. Meanwhile Alexander Balas revived the Zeus Olympios types of his putative father Antiochus, 'god manifest.' Thoroughly dissatisfied with his incompetent *protégé*, Ptolemy VII drove him from the throne, replacing him in 146 B.C. by the fourteen-year-old son of Demetrius, who now became **Demetrius II** and restored the normal Apollo types of the Seleucid Dynasty. But there was a rival claimant in the person of another child, the three-year-old son of Balas, who was supposed to be a grandson of the fourth Antiochus. This little boy was in the keeping of a certain Tryphon, who secured the allegiance of the garrison of Apamea and entered Antioch, while young Demetrius retired to Phoenicia and there reigned for six years longer. The baby was now proclaimed as **Antiochus** "god manifest" Dionysus, and tetradrachms were struck from 144 to 142 B.C. with his portrait diademed and crowned with rays, and with the mounted Dioscuri in star-adorned caps; while in addition to the royal name, titles, and the date, there appeared **ΤΡΥ**, the three initial letters of Tryphon's name [Pl. LIV, 3].

Royal infanticide had by now become almost a pastime in Syria, so that **Tryphon** probably felt slight scruple in killing his charge and mounting the throne himself in 142 B.C. But since he was not of the blood royal he felt the need for a special claim upon the coins which he caused to be inscribed **ΒΑΣΙΛΕΥΣ ΤΡΥΦΩΝΟΣ ΑΥΤΟΚΡΑΤΟΡΟΣ** "of King Tryphon, ruler by his own power"; his diademed head was on one side, and on the other a decorative spiked Macedonian helmet ornamented in front with a large ibex-horn, the whole sometimes within an oak-wreath like that upon the royal tetradrachms of Macedon [Pl. LIV, 4].

The second Demetrius, still ruling a part of the kingdom, was made a prisoner by the Parthians in 138 B.C., and in the same year his younger brother **Antiochus VII** managed to drive out

Tryphon and to become king, adopting a standing Athena for his coin-type. He was killed in battle against the Parthians nine years later and was succeeded by his elder brother Demetrius who, having been released, returned for a second brief reign of one year, wearing a full beard in Parthian style.

From now on, utter confusion prevailed in the Seleucid kingdom, the only dominant personality being the queen **Cleopatra Thea**, "the goddess," daughter of Ptolemy VI, who had married successive rulers, Alexander Balas, Demetrius II, and Antiochus VII Sidetes. This strong-willed woman proceeded in 122 B.C. to act as regent for her son Antiochus VIII Grypus, striking coins with their two heads and a Zeus reverse [Pl. LIV, 5]. Two years later the young man poisoned his mother and found himself involved in constant conflict with a half-brother. Various puppet-kings followed until in 83 B.C. the people of Syria, wearied with the endless fratricidal wars of the degenerate Seleucids, called on **Tigranes**, the powerful king of Armenia, to free them. That monarch responded with alacrity and ruled in Antioch until 69 B.C., striking tetradrachms with his head wearing a tall Armenian tiara ornamented with a rayed sun between two eagles, and on the reverse a figure of the statue made by Eutychides¹, a pupil of Lysippus, to represent the Tyche of Antioch with the river-god Orontes swimming at her feet [Pl. LIV, 6].

Lucullus forced the competent Tigranes to abandon his Syrian dominion in 69 B.C. and allowed the throne to be occupied by the last miserable Seleucid, known as **Antiochus XIII**, a grandson of the ninth king of that name, who employed the Zeus type for his degenerate money [Pl. LIV, 7]. Finally in 64 B.C. Pompey the Great arrived in Syria and put an end to the misfortunes, which that land had endured at the hands of weak and incompetent rulers, by forming Syria into a Roman province.

C. BACTRIA AND INDIA

From a contemplation of the decadents among the last scions of the House of Seleucus it is a relief to turn to the history of a line of rulers who were men of a tougher breed, the Greek kings of Bactria and India².

¹ C.A.H. *Plates*, iii, 124 a, b, c.

² See G. Macdonald in *Camb. Hist. India*, i, p. 388 ff. R. Whitehead, *N.C.* 1923, p. 294 ff., and *N.N.M.* No. 13. W. W. Tarn, *The Greeks in Bactria and India*, 1951.

It was about 250 B.C. that **Diodotus**, satrap of "the thousand Cities of Bactria," as he was called, set up an independent kingdom. For his suzerain, Antiochus II Theos, he had struck tetradrachms with a fulminating Zeus [Pl. LIV, 8], and on gaining independence he substituted his own name for that of the Syrian king, but retained the types [Pl. LIV, 9]. Before 210 B.C. a certain **Euthydemus**, a Greek of Magnesia, became king and adopted for his reverse type the seated Heracles [Pl. LV, 2] who had appeared on the Asiatic-Greek tetradrachms of the two first Antiochi [Pl. LII, 9]. The magnificent portrait of this king, elderly, rather toothless and with pursed-up lips, has made possible the identification of a portrait-head of the same man wearing a solar topee, now in Rome¹, one of the finest of all Hellenistic portraits. It is a curious circumstance that the most excellent of all the series of Greek portrait coins comes from the remote kingdom of Bactria: numerous competent Greek artists must have had their home here, and perhaps their regular contact with central Asian native arts and crafts gave them a vigour and an originality which most of their contemporaries of that era lacked. "No rivals to the lifelike portraits of Euthydemus and Demetrius appeared in the world until after the lapse of sixteen centuries, when the Greek spirit was again kindled in the Renaissance and manifested itself in the medals of the great Italian artists²."

The third great Bactrian king was **Demetrius I**, who succeeded his father Euthydemus about 190 B.C. and embarked upon campaigns that made his name famous in all Asia. Advancing to the east he annexed the countries of the Indus valley, thus regaining for the Greeks the lands which Alexander had conquered and which Seleucus I had surrendered to Chandragupta. But he also advanced his frontiers up to Chinese Tartary, and the echoes of his exploits filtered through to mediaeval Europe until he found himself figuring in the *Knight's Tale* of Chaucer as "the grete Emetrius, the king of Inde." In Bactria his Attic tetradrachms show his draped bust with the scalp of an Indian elephant set upon his head, while a Heracles crowning himself is the reverse type [Pl. LV, 1]. For his Indian

¹ R. Delbrück, *Antike Porträts*, Pl. 29.

² E. J. Rapson, *Camb. Hist. India*, i, p. 545. The portrait of Antimachus [Pl. LV, 3], who may have been a colleague of Demetrius, is of equal excellence.

dominions different coins were struck, smaller tetradrachms of Indian weight with a bust of the king wearing a solar topee and the legend **ΒΑΣΙΛΕΩΣ ΑΝΙΚΗΤΟΥ ΔΗΜΗΤΡΙΟΥ**; and on the reverse a standing Zeus surrounded by a legend in Kharoshthi, *Maharajasa aparajitasa Demetriyasa*, "of Maharajah Demetrius the Unconquered" [Pl. LVI, 3]. Copper coins were likewise issued, square in form, since this was the shape most favoured by the natives [Pl. LVI, 4]. One of the king's Greek generals, **Eucratides** by name, revolted about 175 B.C. while Demetrius was in India and succeeded in wresting Bactria from him. A long war between the two rivals resulted before 160 B.C. in the triumph of Eucratides, who drove his opponent into the eastern Punjab while he himself annexed the country of the Indus to Bactria. This king likewise struck coins of two distinct types, Indian bilingual pieces for India [Pl. LVI, 1, 2], Attic tetradrachms for Bactria [Pl. LV, 4]; on both his reverse type was the Dioscuri, his headdress a crested topee with the ear and horn of a bull worn as a sort of cockade. He was the first Greek king to describe himself as "the Great" upon a coin, but this was merely because *βασιλέως μεγάλου* was the translation of *Maharajasa*, and was therefore no mere piece of bombast. But one piece of *hubris* can be laid to his account in the matter of the gold coinage, which he struck to mark his triumph over Demetrius, for he minted the largest ancient gold coin in existence [Pl. LV, 5]¹, a huge piece of twenty Attic staters, weighing 168·05 grammes. "No other king or city of ancient times was ever responsible for so ostentatious a display of opulence²."

Some forty years after the issue of this huge gold piece Bactria was lost to the Greeks, when that country was overrun first by the Sakas and later by the Indo-European Tochari³. But in north-west India a brilliant Greek civilisation lasted for several generations longer; for that the natives were powerless against the Greeks is shown by the terror they inspired. In the *Purana* writings they are referred to as "the viciously valiant

¹ Now in the Bibliothèque Nationale, Paris.

² G. Macdonald, *loc. cit.* p. 455. Peculiar circumstances, such as the capture of hoarded gold from some native prince and the subsequent division of a portion among the higher ranks of his army, might have occasioned the issue of this piece. The monogram upon it is the same as that upon the Indian silver coins [Pl. LVI, 2] and proves it to have been minted not in Bactria, but in India. Eucratides was, according to Tarn, a cousin of Antiochus IV of Syria.

³ *G.A.H.* ix, p. 582.

Greeks¹." The lands that these European rulers held were presently split up into a number of small principalities in the Kabul valley, Gandhara, and the Punjab. Each local Greek maharajah issued his coins on which the portraiture remained good to the end until they became merged with the Greek-speaking Saka rulers from Bactria who spread into India; but for long the traces of Greek civilisation still lingered in the valley of the Indus.

D. PARTHIA

While Bactria fell away from the eastern portion of the empire, other territories were lost nearer the centre of the Seleucid dominions. The Parthian satrapy gained a measure of independence under the leadership of two brothers, Arsaces and **Tiridates I**, the second of whom was crowned king about 248 B.C. Since almost all the kings took the name Arsaces, it is not always easy to assign the coins to the correct monarchs². Among those of Tiridates I and his immediate successors are drachms with the head of a beardless king in a Persian cap and a cloaked Apollo seated upon the omphalos copied from Seleucid coins [Pl. **LVI**, 5]. It was **Mithradates I** who about 160 B.C. became the real founder of the Parthian Empire, greatly extending his dominion and striking tetradrachms and drachms of Attic weight with his bearded portrait and the figures of Greek gods, Heracles, Zeus, or Tyche [Pl. **LVI**, 6]; and bronze coins with representations of a horse's head, an elephant, or the Dioscuri. The prototypes that his engravers employed were either Seleucid or Bactrian, like the series of Greek cult-names which the kings of Parthia affected. From the reign of the second Mithridates, who secured Mesopotamia, that is from about 124 B.C. on, the coins become ever more un-Greek in appearance, as may be observed on the coins of **Orodes II**, the conqueror of Crassus in 53 B.C., the reverses of which represent a Tyche kneeling before the seated king who is grandiloquently described as "King of kings, Arsaces, the Benefactor, the Just, god manifest, Philhellene" [Pl. **LVI**, 7]. For nearly three centuries more the Parthians issued coins which grew ever more debased until the Persian Ardashir brought about the subjugation of

¹ E. J. Rapson, *Camb. Hist. India*, i, p. 544.

² For the most recent account see W. W. Tarn in *C.A.H.* ix, Ch. xiv.

Parthia in A.D. 227, replaced the Arsacid by the Sassanian dynasty and inaugurated the mediaeval coinage of nearer Asia.

E. THE KINGDOMS ON THE EUXINE

Two kingdoms, those of Pontus and of Bithynia, were established in the year 297 B.C., the former by a Mithradates, the member of an old Persian family, the latter by a certain Zipoetes. The Pontic kings of the Mithradatic dynasty, however, generally dated from the time when one of their ancestors had begun to rule in the city of Cius in 336 B.C.¹ When coinage began it was at first of the Alexander type, though presently royal portraits began to appear. **Mithradates III** was the first to place his head on a tetradrachm, and, though his reverse retained the seated Zeus of the Alexander coinage, he placed the blazon of his dynasty, the star and crescent, in the field [Pl. **LVI**, 8]. This was the blazon which the kings of Pontus passed on to Byzantium and which Constantinople retained under Christian and Turk until in our day it still remains upon the flag of the Turkish Republic. A pantheistic deity figured on the reverse of the money of **Pharnaces I** [Pl. **LVI**, 9], Zeus and Hera on that of his brother and sister, **Mithradates IV** and **Laodice**, in the first half of the second century B.C., or Perseus, the supposed ancestor of his family [Pl. **LVII**, 1; **LVI**, 10]. The portraits upon these coins show a power of characterisation which is only surpassed by those of the Greek kings of Bactria, though the artists who made the Bactrian coins produced better reverses.

Mithradates VI Eupator, "the Great," became king in 120 B.C. and added the kingdom of Bosporus to that of Pontus. On his coins he dropped the style of an almost brutal realism, which his ancestors had favoured, and chose to appear as a kind of reincarnation of Alexander the Great "with his hair floating romantically around his head²." They were, of course, the work of Greek engravers and merely served to emphasise the pitiful level to which Greek art had fallen by the beginning of the first century before our era. During his long reign Mithradates the Great issued Attic gold staters and tetradrachms inscribed **ΒΑΣΙΛΕΩΣ ΜΙΘΡΑΔΑΤΟΥ ΕΥΠΑΤΟΡΟΣ**; the type a stag grazing, or more generally, Pegasus drinking, a star and crescent, a monogram and date, the whole within an ivy-wreath [Pl.

¹ M. Rostovtzeff in *C.A.H.* ix, p. 217 f.

² *loc. cit.* p. 221.

LVII, 2, 3]. In addition to these he caused a number of gold staters which revived the types of Lysimachus¹ to be struck in Greek cities like Byzantium, Istrus, and Tomi on the western coast of the Euxine; but the horned head of Alexander on these coins had a face like the face of Mithradates. When Rome at last succeeded in defeating this the most obstinate of her Eastern foes, the issue of any important Greek coinage ceased in the region of the Black Sea.

Of the Bithynian kings the earliest to strike Greek coins was **Nicomedes I**, after whom came two kings named Prusias to be followed by three more named Nicomedes. All set their portraits upon their Attic tetradrachms, and the first king employed as reverse type a seated goddess, the others a standing Zeus crowning the royal name [Pl. **LVII**, 4]. On the death of the last ruler in 74 B.C. Bithynia became a Roman province, with which the old kingdom of Pontus was presently incorporated.

F. PERGAMUM

Before the Seleucid Empire had lost its Bactrian and Parthian satrapies it was already shorn of its western provinces by the Attalid dynasty. When Lysimachus attacked Demetrius the Besieger in Macedon in 288 B.C., he left behind him to guard his huge treasures in Pergamum the eunuch **Philetaerus**, and this worthy made over the city to Seleucus I in 287 B.C., acknowledging the king of Syria and the East as his suzerain. That he retained a considerable measure of independence is, however, shown by the coins which he issued. His obverse type was a head of King Seleucus, his reverse a seated Athena copied from the money of Lysimachus [Pl. **XLIX**, 9], but the name on the tetradrachm was that of Philetaerus, though without any royal title [Pl. **LVII**, 5].

His nephew, **Eumenes I**, who succeeded him in 263 B.C. did not claim the title of king either, but he severed his connection with the Seleucids and allied himself with Egypt, to which his dynasty remained faithful. On his coins he left the reverse unaltered but substituted for the head of Seleucus the heavy-jawed portrait of his uncle Philetaerus; and, thus established, these types remained almost unchanged upon the Attic tetradrachms of the Attalid dynasty down to 133 B.C. [Pl. **LVII**, 6].

¹ See p. 221.

Attalus I, another nephew, who succeeded in 241 B.C., made a small change of type, causing Athena to place a crown upon the name of *Philetaerus*; for the rest the designs were unaltered. During his reign the **Cistophorus** coinage of Asia¹ was inaugurated, first of all perhaps at Ephesus, though the money passed quickly to Pergamum.

The Cistophoric tetradrachms were apparently of reduced Chian weight—about 12.65 grammes—and had upon the obverse a *cista mystica*, used in Dionysiac rites, with a serpent crawling from under its half-open lid, all in an ivy-wreath; and on the reverse a large bow-case flanked by two coiled serpents and the initials and symbols of various cities and magistrates [Pl. LVII, 7]. Ephesus and Smyrna minted them in Ionia, Pergamum and Adramytium in Mysia, Sardis, Thyateira, and four lesser cities in Lydia, as well as three Phrygian towns. These remarkably hideous coins became the chief currency not only of the Pergamene kingdom but of all Asia Minor. Livy records² that the triumphs of the years 190 and 189 B.C. brought into Rome a booty of 960,000 such *Cistophori*; and, when the Roman province of Asia was constituted, the Proconsular governors of Rome continued the issue of the unsightly money. It is on one of these coins issued in Phrygian Apamea that the distinguished name of M. Tullius Cicero, Proconsul of Cilicia and part of Phrygia in 51 to 50 B.C., is preserved [Pl. LVII, 9]³.

The Attic tetradrachms of the two last kings of Pergamum, Attalus II and Attalus III, the second of whom bequeathed his kingdom to the Roman people in 133 B.C., were wide-spread pieces with shapeless Athenas upon their reverses. Pergamum, which attained a reputation, perhaps beyond its deserts, in the production of sculpture, was singularly unhappy in the selection of its coin-types.

Not a few of the free city states that were on the fringe of the Pergamene kingdom issued autonomous coins between the third and first centuries, and frequently employed as types for these the devices that still proved the most acceptable in the eastern Mediterranean [Pl. LVII, 8], the Heracles head, the seated Zeus, and even the name of Alexander.

¹ F. Imhoof-Blumer, *Die Münzen der Dynastie von Pergamon*, p. 32 ff.

² xxxvii, 46, 58 f.; xxxix, 7.

³ Cicero, in his letters, frequently refers to them: *ad Atticum*, ii, 6; ii, 16; xi, 1; *ad Familiares*, v, 20.

CHAPTER XIV

THE EGYPTIAN AND SICILIAN KINGDOMS

A. THE HOUSE OF PTOLEMY

WHEN **Ptolemy**, surnamed "Saviour," son of Lagus, took over the satrapy of Egypt, he at first continued the Alexander coinage. As the only one among the Successors related by blood to the royal house of Macedon, he had a somewhat privileged position and was the first of them all to make any alteration in the types. To begin with, it was no more than a modification, for, when the idiot Philip III was murdered by Olympias in 317 B.C.¹, the little Alexander IV was left as sole king, and Ptolemy in Egypt substituted, for the Heracles head, a head intended to represent the child's father. From Alexander's brow there springs forth the ram's horn of Ammon, on his head is the scalp of an Indian elephant, around his neck an aegis; thus he chances to appear with the attributes of the gods of three continents, of Amon-Ra for Africa, of Ganesa for Asia, and of Zeus for Europe. On the reverse there remains the seated Zeus and the name of Alexander [Pl. LVIII, 1].

It was perhaps two years later that the reverse was changed for a new blazon, a fighting Athena of archaistic type, hurling a thunderbolt and holding a shield, the name of Alexander before her and the badge of Ptolemy himself, an eagle [Pl. LVIII, 2]; the weight Attic. Some of these coins instead of Alexander's name had the legend **ΑΛΕΞΑΝΔΡΕΙΟΝ ΠΤΟΛΕΜΑΙΟΥ** ("an Alexander coin of Ptolemy") [Pl. LVIII, 3]. The next step was to abandon the Attic standard for the Rhodian or Chian, which was employed for a short while for similar pieces. Then in 310 B.C. Cassander murdered the little Alexander IV, and it was no longer necessary for Ptolemy to retain his name on the coinage. There followed coins of Rhodian weight like the last described, but with the name of the ruler of Egypt. Ptolemy, like the other Successors, took the title of king in 305 B.C. and began to set it, as well as his portrait, on his coinage. At the same time he dropped the Chian standard for the weight-system current in Cyrene, which thenceforward became one of the

¹ See p. 218 above.

principal Ptolemaic mints, the other great mints being at Alexandria and in Cyprus. The Cyrenean standard was akin to the Phoenician¹ and is usually described by that name; it was generally retained in the Egyptian Empire for both gold and silver down to the time of the Roman occupation.

The coins of Ptolemy I Soter as king show his head with the aegis of Zeus around his neck, the symbol of divinity being appropriate to one who was not only king but also Pharaoh. The reverse of his gold staters represents Alexander in a chariot drawn by four elephants; of his silver tetradrachms, the Ptolemaic eagle upon a thunderbolt [Pl. LVIII, 5, 4]. Of the last type there were also issued a few gold pentadrachms.

Ptolemy II "Sister-loving" was associated as co-ruler with his father two years before the latter's death in 283 B.C., and after that event he carried on the same coin-types², his father's head and the eagle. In 280 he married his sister Arsinoë, widow of Lysimachus, who brought as her dowry some of the cities of Ionia and the Phoenician Marathus. Before 271 B.C. he and his queen were formally recognised as demi-gods, and gold coins were issued with the heads on one side of his parents Soter and Berenice I labelled ΘΕΩΝ, on the other of himself and his sister-wife Arsinoë with the word ΑΔΕΛΦΩΝ [Pl. LVIII, 7]. How much importance was attached to the investing of the royal house with an atmosphere of divinity appears in the panegyric of Ptolemy II written by Theocritus.

"What an achiever of mighty exploits was Ptolemy son of Lagos, . . . whom now the Father hath made equal in honour with the Blessed; a golden mansion is builded him in the house of Zeus, and seated friendly beside him is the Lord of the glittering *mitra*, that god of woe to the Persians, Alexander³."

¹ See p. 183 above. In the present chapter it is called the "Ptolemaic standard."

² There is still considerable uncertainty about numerous Ptolemaic coinages with the Soter and eagle types. The four-volume *Corpus* by J. N. Svoronos (*Νομίσματα τοῦ Κράτους τῶν Πτολεμαίων*; 3 vols. Greek, 1 vol. German) contains many errors, some of which are corrected by B. V. Head, *H.N.* p. 846 ff., and by K. Regling, *Z.f.N.* xxv, p. 344 ff. Additional information may be gleaned in a paper *loc. cit.* xxxiv, p. 67 ff. by W. Koch, but his suggestions about Berenice II are not altogether convincing. See also E. T. Newell, *N.N.M.* No. 33. Light on some issues is thrown by E. S. G. Robinson in *B.M.C. Cyrenaica*.

³ Theocr. xvii, lines 12 ff. The glittering *mitra* of Alexander is the Persian headdress, which he wears on the Babylonian decadrachms; see p. 213.

Arsinoe died in 270 B.C. and was likewise promptly deified and given a place in the cultus of existing temples, a stroke of policy which placed in the hands of the royal treasury large funds from temples that were forced to adopt her cult¹. In her honour great quantities of golden octadrachms and silver decadrachms were coined from the proceeds of this treasure. In the idyll already cited² Theocritus wrote of Ptolemy:—

“For wealth his would outweigh the wealth of all the princes of the earth together—so much comes into his rich habitation day by day from every quarter.”

The Arsinoe coins bore her head as a goddess, crowned, veiled, the horn of Ammon in her hair, a sceptre over her shoulder; and on the reverse a double horn-of-Plenty and the legend **ΑΡΣΙΝΟΗΣ ΦΙΛΑΔΕΛΦΟΥ** “of Brother-loving Arsinoe” [Pl. LVIII, 6]. Later rulers frequently repeated the issue of copies of these coins, but the copies are to be distinguished by their cruder and coarser appearance. The era of Arsinoe was dated from 270 B.C., the year of her Translation.

The son of Ptolemy II Philadelphus joined his father on the throne about 260 B.C. Now Cyrene had become detached from Egypt, being under the rule of Magas, a half-brother of Philadelphus. In 258 B.C., however, Magas died and his heir, the princess Berenice, married the son of Philadelphus, the future Ptolemy III, and so united Cyrenaica to Egypt once more. It was possibly to celebrate this event that there were struck in Ephesus certain gold octadrachms with a veiled head of Berenice and a horn-of-Plenty surrounded by the legend **ΒΕΡΕΝΙΚΗΣ ΒΑΣΙΛΙΣΣΗΣ**, the bee of Ephesus appearing as a symbol in the field [Pl. LVIII, 8]. Uninteresting though this reverse may be, the obverse at least shows that Ionia could still produce an artist who could engrave a portrait of the finest quality.

The husband of this queen became sole king in 246 B.C., when he succeeded his father as **Ptolemy III** “the Benefactor,” reigning until 221 B.C. His successful campaigns against Seleucus II brought fresh wealth into Egypt and resulted in an increase in the currency. For a few years a number of coins of Attic weight³ made a sudden appearance; in gold decadrachms, pentadrachms, pieces of two-and-a-half, of a half, and of a

¹ A. D. Nock, *Harvard Studies*, xli, p. 4 ff.

² Lines 96 ff.

³ These were the *Berenikaia nomismata* mentioned by Pollux, *Onom.* ix, 84.

quarter-drachm weight; and silver decadrachms and their halves and quarters, all with the portrait of Queen Berenice who had grown more buxom since the days when the Ephesian gold had been minted [Pl. **LVIII**, 9]. Since five Attic drachms were equivalent to six Ptolemaic "Phoenician-weight" drachms, these pieces fitted into the normal Egyptian system¹. It was, however, a passing phase, this employment of the Attic standard, and was not to be repeated.

Euergetes continued the issue of Arsinoe-type gold and of Ptolemy-Soter-type silver, but struck in addition some coins in both metals with his own portrait as a pantheistic deity. Around his head is the royal diadem and a crown made of alternating rays and twisted horns, over his shoulder a composite object, sceptre-trident with wings, around his neck the aegis; thus he is Helios-Ammon-Poseidon-Hermes-Zeus in one [Pl. **LVIII**, 10].

The fourth **Ptolemy** though he took the name **Philopator**, or "Father-loving," did not scruple to cause the assassination of his mother, Berenice. This weak and incompetent king, who reigned from 221 to 204 B.C., was devoted to the cult of Sarapis and Isis, which had in its Greek form been inaugurated by his great-grandfather², and placed the heads of these deities on his tetradrachms with the eagle reverse [Pl. **LIX**, 1]; while his gold octadrachms bore portraits either of himself or of his queen Arsinoe III [Pl. **LIX**, 2, 3]. Philopator also appears to have adopted the guise of Dionysus, for it is to him that there are perhaps to be assigned certain didrachms and fractions, apparently minted in Cyprus, with the king's bust in diadem and ivy-wreath, a thyrsus over his shoulder; the Ptolemaic eagle, as usual, on the reverse [Pl. **LIX**, 4].

His son **Ptolemy V**, "god manifest," succeeding to the throne as a child in 203 B.C., lost all of the empire's foreign possessions, except Cyprus and Cyrene, to Antiochus the Great of Syria, whose daughter Cleopatra he, however, subsequently married. This queen became in 181 B.C. the guardian of her small son **Ptolemy VI**, "Mother-loving"; and during his minority his uncle, the king of Syria Antiochus IV, "god manifest," carried out his invasion of Egypt³. Most of the coins issued in these two

¹ E. T. Newell, *N.N.M.* No. 33, p. 10 ff.

² On the importance of this cult see *C.A.H.* vii, p. 145 f.

³ See p. 230 f. above.

and in several subsequent reigns simply repeat the old badges both in gold and silver and in the large bronze pieces which had by now apparently become common currency in Alexandria [Pl. **LIX**, 5]¹. It was some of these large coins of the period that Antiochus IV imitated in Antioch after his return from his Egyptian campaign [Pl. **LIII**, 8].

Just as confusion set in during the second century in the Seleucid Empire, so it now began in that of the Ptolemies. Young Ptolemy VII had barely ascended the throne when he was murdered by his uncle **Ptolemy VIII**, nick-named Physcon, or "Pot-belly," in 146 B.C., a king who began to set upon the coinage dates preceded by the sign **L**, a fragmentary survival² of the initial **E** of **ΕΤΟΥΣ** ("of the year"). This ruler's son, known as the ninth Ptolemy, predeceased his father. There followed in 116 B.C. a regency under a queen, Cleopatra III, and internecine struggles among incompetent claimants to the throne, until in 80 B.C. the crown passed to **Ptolemy XIII**, "New Dionysus." In taking this title the king probably emphasised the Egyptianising tendencies of the late Ptolemies, who accepted the old Pharaonic conception of the monarch as a reincarnation of Osiris³. Among his Greek subjects, however, this "New Dionysus" enjoyed the less flattering nickname of "the Flute-player." That Egypt had fallen low is evidenced by his coins [Pl. **LIX**, 6], which are singularly base both in the quality of their metal and the wretched caricatures upon their obverses, intended to depict the divine Ptolemy I Soter.

The last of the reigning Ptolemies, the most celebrated of them all, was the daughter of "the Fluteplayer," **Cleopatra VII**, who between 51 and 30 B.C. was the dominating personality first in Egypt and then in the east of the Roman Empire. While her ordinary coinage resembled that of her father's reign, she issued a considerable number of coins with her own portrait. On the majority of these the queen is far from attractive; and one of the most celebrated beauties of history appears as a woman of regal aspect, but long-nosed and hard-mouthed, with features recalling those of Queen Elizabeth I. This, however, is her portrait on coins struck in Antioch and Ascalon [Pl. **LIX**, 8] from dies

¹ J. G. Milne, *The Currency Reform of Ptolemy II, Ancient Egypt*, 1928, p. 37, suggests that Ptolemy II first introduced the large bronze coins.

² Compare the rough breathing **Ϝ**, **Ϛ**, **Ϝ**, as a vestige of **E**. **H**.

³ A. D. Nock, *J.H.S.* xlviii, 1928, p. 33.

made by inferior engravers. Much more attractive is her head on a silver drachm [Pl. **LIX**, 7] minted in Alexandria in 47 B.C. and upon some nearly contemporary bronze coins. On the drachm she appears at the age of twenty-two, her features not yet hardened as they are upon the coins that associate her with Antony. Here at least we can picture the woman of whom Plutarch wrote¹:—"Her beauty was in itself not altogether incomparable nor such as to strike those who saw her; but converse with her had an irresistible charm, and her presence, combined with the persuasiveness of her discourse and the character which was somehow diffused about her behaviour towards others, had something stimulating about it."

Of the three great kingdoms that were the heritage of Alexander's empire the Macedonian ended in tragedy, the Syrian in impotent decay. But the Egyptian kingdom terminated in a certain romantic glamour, when the last of the reigning Ptolemies, failing to enchant Octavius as she had charmed both Caesar and Antony, took her own life.

B. THE AUTOCRATS OF SICILY

Democracy in New Syracuse did not long survive the death of Timoleon², for the city became subject to the rule of an autocrat about 317 B.C. This was **Agathocles**, who as "general plenipotentiary" of Syracuse re-established an absolute government of the type that Dionysius I had set up, and like the latter claimed to rule all Sicily. The Pegasus coinage of Corinthian type which Timoleon had inaugurated was continued, but received, as a distinctive symbol under the winged horse, a *triskeles* which indicated the claim of Agathocles to the whole island [Pl. **LX**, 1]. For his wars against other Sicilian states, and in 311 B.C. against Carthage, the autocrat issued certain gold coins, which were careful imitations of the Macedonian *Philippeioi*, but of half their weight, the presence of the Syracusan name and of the *triskeles* under the chariot distinguishing them from their prototypes [Pl. **LX**, 2].

Agathocles, in order to rescue Syracuse from a Punic siege, made in 310 B.C. his spectacular and successful raid into Africa, which spread terror among the Carthaginians until three years

¹ *Anton.* xxvii.

² See p. 191 ff. above.

later he returned to Syracuse. It was apparently during this war that new types appeared upon the coinage, silver tetradrachms being struck with a head of Kore and the name of the Syracusans for obverse, and on the reverse a figure of Nike, naked to the waist, erecting a trophy, the name of Agathocles and a *triskeles* in the field. Then the Syracusan name was dropped and the name, **KOPΑΣ**, of the goddess replaced it [Pl. **LX**, 3]. In Africa, perhaps, he issued a gold stater with types copied from those of Ptolemy I Soter, a king with whom he presently concluded an alliance. A head in an elephant's scalp was on one side, on the other a winged Athena with her spear and shield, an owl beside her [Pl. **LX**, 5]; the bird perhaps an allusion to the story that Agathocles, to encourage his men in the battle before Carthage, let fly a number of owls which settled upon their helmets and were accepted as an omen of victory¹.

In 304 B.C. Agathocles followed the example set in the previous year by the Successors and took the title of 'king,' which thenceforward appeared upon his gold and bronze coinage; the former having a head of Athena and a thunderbolt as types [Pl. **LX**, 4]. At the same time he reduced the monetary standards so that his gold stater became an eighty-litra and his silver "Pegasus" an eight-litra coin.

To the closing years of the fourth century are to be assigned certain Punic coins imitating Greek prototypes. Great numbers of Alexander tetradrachms² had reached the West, and the Carthaginians in Sicily imitated Alexander's head of Heracles for their coins, though retaining for the reverse their own horse's bust and palm-tree [Pl. **LX**, 6]. In addition they produced coarse imitations of the Nike-tetradrachms of Agathocles.

Hicetas ruled Syracuse for nine years from 288 B.C. onwards, issuing some gold pieces in his own name and silver in that of the Syracusans³. He was not, however, successful in stemming a fresh Carthaginian attack on the Siceliotes, who now called upon Pyrrhus king of Epirus for help. That monarch had been invited by the people of **Tarentum** to come to their aid in 282 B.C., when the war broke out with Rome. The presence of Pyrrhus in the West now resulted both directly and indirectly in a number

¹ Diod. Sic. xx, 11, 3.

² See p. 215 note 1; and Map on p. 216.

³ B. V. Head, *H.N.* p. 183.

of novel coinages. In the first place he left his mark on the money of the Tarentines, who issued gold staters with a head of Zeus reminiscent of the similar pieces which Alexander son of Neoptolemos¹ had minted in Italy [Pl. XLV, 13]; but the reverses of these pieces had an eagle of Ptolemaic aspect, for the Epirote had married a daughter of Ptolemy and Arsinoe Philadelphus, and beside the eagle a small figure of the now popular fighting Athena [Pl. LX, 8]. Furthermore some of the Tarentine silver was also marked with another Pyrrhic symbol, a little elephant beneath the dolphin-rider [Pl. LX, 7]; a reference to the king's twenty fighting elephants, which he shipped across to Italy to the discomfiture of the Romans at the battle of Heraclea.

It was the war of Rome against Pyrrhus that called forth the earliest Roman coinages², struck for the Romans by some of their Italian allies from silver supplied by the Carthaginians, who were anxious to keep Pyrrhus out of Sicily. In this they failed, for in 278 B.C. he transferred his forces to that island, and the assembled rulers of the Greeks meeting in Syracuse proclaimed **Pyrrhus king of Sicily**. The coins that he now issued in Syracuse, with his own name and royal title, for the war against the Punic forces, were gold staters and half-staters, equal to pieces of 80 and 40 litrae, and silver eight-litra pieces. The two former bore heads of Athena and of Artemis, and upon the reverses a flying Nike carrying an oak-wreath and a trophy [Pl. LX, 9, 10]; but the stater was of course simply a modification of the Alexander gold. The silver coins had as their devices a head of Kore as upon the Agathoclean money, and a fighting Athena of archaising type [Pl. LX, 12]. Having achieved but little, the king left Sicily to its fate in 275 B.C. and returned first to Italy and thence to Greece.

In this last period of its independence Syracuse was destined to enjoy a long period of competent and benevolent rule, for one of Pyrrhus' younger officers named Hieron was elected general of the army and obtained great influence. In 269 B.C., having won a decisive victory over the Mamertines of Messina, he was elected king by his people and became **Hieron II**. Up to that time Syracuse had issued Pegasi of light weight with the name

¹ See p. 195 above.

² This is outside the scope of the present work and therefore a reference must suffice to *The Coinage of the Roman Republic*, by Sydenham and Haines, edited by L. Forrer and C. A. Hersh, 1952.

ΙΕΡΩΝΟΣ [Pl. LX, 13]; but now the king's likeness began to appear on the coinage as well as his name and title; moreover the portraits and names of members of his family were also presented on the coins.

That he established close relations with the Egyptian kingdom is evident from the fact that Hieron adjusted the Syracusan standard to the Ptolemaic. In Sicilian terms his silver coins were pieces of 32, 16, 8, 4 and 2 litrae, but they corresponded exactly to the commonest Egyptian denominations current at that time and could be reckoned as Ptolemaic octadrachms, tetradrachms, didrachms, drachms, and hemi-drachms¹. Four- or two-horse chariots driven by Nike were the reverse types of most of the coins; and upon the octadrachm was the head of Hieron, on the tetradrachm that of his queen Philistis, on the smaller pieces the portrait of his son Gelon [Pl. LX, 11, 14, 15]. Others of these lesser coins showed the queen's head, and, in place of her name upon the reverse, the word ΣΙΚΕΛΙΩΤΑΝ ('of the Siceliotes'), which proclaimed the king's rule over the whole of the Greek portion of the island. The head of Philistis veiled and diademed was copied from contemporary Egyptian coins with the head of the divine Arsinoe. But, anxious as Hieron was to stand well with the still powerful Ptolemies and to patronise the art and learning of Alexandria, his main aim was to promote a kind of renaissance of the glories of the Deinomenid dynasty, of which the ornaments had been Gelon I and Hieron I. Thus, when Theocritus wrote a poem² in honour of the second Hieron, he could not fail to make it reminiscent of the more splendid Epinikian ode of Pindar³ in honour of the king's earlier namesake. Yet Theocritus, in the same poem, must bewail the fact that now "every man looks, hand in pocket, where he may get him silver⁴."

While the coins issued by Hieron II in his own name and with the names and portraits of his queen and of his heir are well and carefully struck, they are aesthetically among the more wretched examples of moribund and stereotyped art. It is but necessary to compare the octadrachm of Hieron with the decadrachm by Kimon or the *Demareteion* to realise the worthlessness of an art that is dead. Yet there was worse to come.

Since Prince Gelon predeceased his father, the monarchy

¹ A. Holm, *Geschichte Siciliens*, iii, p. 694.

² Theocrit. xvi.

³ *Pyth.* i.

⁴ Theocrit. xvi, 16 f.

passed in 216 B.C. to the latter's worthless grandson, **Hieronimus**, who issued silver of 24-, 10-, and 5-litra weight with his portrait and a thunderbolt reverse [Pl. **LX**, 16]. On his assassination about a year later, democratic rule was restored, and Syracuse committed the grave error of taking Hannibal's side in the second Punic war. In her last three years of liberty the city issued numerous coins for the campaigns, the most common being 12- and 8-litra pieces both with a head of Athena, the same head-die being frequently employed for either denomination. The small coin had for reverse a thunderbolt, the larger an Artemis huntress short-skirted and top-booted, a hound at her side [Pl. **LXI**, 1], the worst design that a Greek ever made for a coin. In 212 B.C. Marcellus captured the city and its spoils became the chief ornaments of a Roman triumph.

It was the misfortune of Republican Rome that she should glean some of her earliest notions about Greek art from the Syracuse of Hieron II; and in her endeavours to comprehend and interpret Greek art Rome took long to unlearn her first bad lesson, even though Etruria had been able to teach her better things than Hellenistic Syracuse. Not until the empire was established did she learn to appreciate in full Greek art of the sixth and fifth centuries.

C. CARTHAGE

Up to the time of Agathocles king of Syracuse the Carthaginians had apparently made no use of coined money save for the occasional gold coins and tetradrachms of Attic standard, which they had minted in Sicily for the payment of their armies, pieces the types of which had, in the main, been borrowed from the types of Greek coins. From about 300 B.C., however, Carthage evidently linked herself up commercially with the rest of north Africa, and for this reason adopted the Ptolemaic standard for the money which she now began to mint at home. In consequence a uniform weight-system prevailed around two sides of the Mediterranean, from Cyprus and Philistia through Egypt, Cyrenaica, and the Punic dominions as far as the Straits of Gibraltar. All the Carthaginian money bore upon the obverse the head of Tanit, Hellenised so as to resemble Kore, wreathed with corn; the reverse type was a horse [Pl. **LXI**, 2], on the second largest denomination transformed to Pegasus. Occasionally

there is a Phoenician inscription, *Byrtsat*, for Byrsa, the name of the Citadel of Carthage. In silver there were coins of the value of 12 [Pl. **LXI**, 6], 10, 8, 6 and 4 Ptolemaic drachms, as well as smaller denominations. The big pieces had clearly no medallic significance, but were simply produced because the Ptolemies had set the fashion of issuing coins of large diameter.

Between the first and second Punic wars, that is between 241 and 218 B.C., Carthage acquired and developed large mines in Spain, which enabled her both to increase her issues of silver and to strike quantities of electrum coins, for she seems to have preferred the diluted metal to pure gold. For this too the standard employed was the Ptolemaic, and the denominations struck were of 6, 3, 2, and 1 drachm and some smaller coins [Pl. **LXI**, 3]. The money issued between the Punic defeat at Zama in 202 and the date of the city's final destruction in 146 B.C. was mainly of debased silver and of bronze.

D. ITALY

The final triumph of Rome over Hannibal marked the end of almost all the autonomous coinage of Italy. But the picture of the last independent issues of gold and silver in the West would be incomplete without some reference to the money employed by the great Carthaginian in his prolonged campaigns, especially as that money was mainly Greek in character.

When he crossed the Alps, his war-chest must have consisted of coins of Carthaginian type, which were presently supplemented by his allies in Italy. It is possible to indicate some of the latter pieces, among them certain bronze coins minted in Etruria with the head of a negro, and on the reverse one of Hannibal's celebrated elephants. Next in **Capua**, which had joined the Carthaginian in 216 and was only recaptured by Rome five years later, there were issued electrum pieces of Punic aspect but with types like those of the current Roman silver coin of ten *asses*, a janiform head and Jupiter in a quadriga [Pl. **LXI**, 5, 8], as well as silver coins of the normal Carthaginian type [Pl. **LXI**, 7]. In **Tarentum**, which Hannibal held between 212 and 209 B.C., necessity compelled the issue of gold, and here the standard employed was still Attic, while the types were Macedonian; a head of Heracles and a two-horse chariot, only the driver was

the child Taras [Pl. **LXI**, 4]. With the gold went silver of the usual Tarentine types, the horseman and the dolphin-rider, but debased both in standard and in art.

For his main supplies of coin, however, Hannibal was dependent upon his most reliable allies in Italy, the **Bruttians**, between 216 and 203 B.C.¹ The Attic gold drachms and half-drachms that they issued had heads of Poseidon or Heracles, and for reverses Thetis upon a hippocamp, or Nike [Pl. **LXI**, 10]; the silver bore varied types, heads of Nike, Hera, Apollo, and Athena; and a river-god, or Poseidon [Pl. **LXI**, 9], copied from a tetradrachm of Demetrius the Besieger, or an Artemis huntress imitated from the last wretched issue of Syracuse [Pl. **LXI**, 1]. With these went a somewhat larger silver piece showing busts of the Dioscuri capped and with stars over their heads, and upon the reverse the same divine twins on horseback raising their hands in salutation, stars floating above them [Pl. **LXI**, 11]. The name **BPETTIΩN** is inscribed upon all these coins.

It was this same reverse type which Rome was later to make her own, placing it upon her denarii², which bore the head wrongly called "Roma" upon the obverse [Pl. **LXI**, 12]. Thus Hannibal the Carthaginian supplied the occasion for native Italians to strike coins with Greek gods and heroes as types. But it was Rome which annexed the principal type, just as it was Rome which in the end derived the chief benefit.

¹ H. Mattingly, *J.R.S.* 1929, p. 34.

² Apparently about 187 B.C. H. Mattingly, *Cambridge University Reporter*, Nov. 1, 1932, p. 249. Sydinham and Haines, *op. cit.* p. xxiv f.

CHAPTER XV

THE LEAGUES AND FREE CITIES

THE nominal freedom which many of the Greek states appeared to enjoy under the Successors of Alexander, and which has its reflection in their issues of autonomous coins, may seem a matter for surprise, until it is realised that rival monarchs were constantly holding out the bait of freedom in order to secure for themselves the alliance of these states and the consequent use of fortified posts within their territories. Thus, since freedom in name carried with it the right to own a mint, many of the city states in Greece and the islands, as well as in Asia Minor, continued to coin small pieces for local use and on occasion larger units. Most of these local issues were, however, gradually crowded out of the world's markets by the coins of the great kingdoms, of the Leagues, and of the two wealthiest states—Athens and Rhodes.

A. RHODES

With surprising success the Rhodians managed to keep themselves for a century and a-half free from all serious entanglements with greater powers. Rhodes, controlling the adjoining islands as well as a portion of the Anatolian mainland, remained a small but important independent power; and she succeeded to the heritage of Athenian thalassocracy, for after the fall of Demetrius the Besieger she was the chief sea-power of the Eastern Mediterranean.

Her coins¹ of Rhodian weight, which was actually the old Chian standard, continued to be minted with unaltered types down to the date of the famous siege of the city by Demetrius in 305 B.C., but didrachms [Pl. LXXI, 13] were more plentiful than the tetradrachms which had predominated earlier in the fourth century.

From the money obtained by the sale of the Besieger's abandoned artillery the Rhodians purchased enough metal to enable the sculptor Chares to construct the great bronze

¹ See p. 150.

Colossus of the sun-god, one hundred feet high, which stood beside the harbour and was ranked as one of the seven wonders of the world. Henceforward the head of this colossal Helios with wind-blown hair and a crown of rays became the obverse type of the coins, great quantities of which were now issued, tetradrachms, didrachms, and fractions. The opening rose remained the reverse type and the inscription **ΡΟΔΙΩΝ** or **ΡΟ**, a magistrate's name, and small device [Pl. **LXI**, 14]. Some of these tetradrachms, found by peasants in the middle ages, have been preserved in Christian churches under the name of "Judas pennies," as relics of the Betrayal of Christ¹; for it was thought that they pictured Christ with the Crown of Thorns and the Rose of Jericho symbolising the Resurrection.

The years of Rhodian prosperity were between 304 and 167 B.C., when her efficient fleets policed the seas and relentlessly suppressed piracy. Rome cultivated her friendship and without her aid could never have defeated Antiochus the Great; and Rome rewarded Rhodes with additional territory in Asia Minor, until such time as the Roman power was strong enough to dispense with her ally's help. For her callous suppression of Rhodes she reaped in the end a bitter reward from the piracy which sprang up in the unpatrolled seas and which ultimately threatened Italy itself with rapine and famine.

In the war against Antiochus, however, two great naval victories were gained by the Rhodians, as allies of Rome, in 191 B.C. off Side and, in the following year, at Myonnesus near Ephesus. It was probably in commemoration of these victories that the people of Rhodes now set up at the sanctuary most honoured by sailors, the Cabeirion at Samothrace, the statue of Nike² upon a prow perhaps made by the Rhodian sculptor Pythokritos, son of Timocharis the Cretan. The figure was evidently inspired by the Nike on a prow with which Demetrius had commemorated his victory at Salamis in 306 B.C. About the time of these naval victories gold staters, and their halves and quarters, of Attic weight with types like those of the silver coins were struck in Rhodes, probably for the war against Antiochus [Pl. **LXI**, 15]; and they were supplemented by a few rare gold

¹ G. F. Hill, *The Thirty Pieces of Silver*, in *Archaeologia*, lix.

² H. Thiersch, *Die Nike von Samothrake*, *Nachrichten d. Gesellschaft d. Wissensch. zu Goettingen*, 1931.

pieces, which revived the types of Philip II and of Lysimachus, but had a little rose and **PO** in the field as well as magistrates' names.

When Rome in 167 B.C. deprived Rhodes of all her possessions and reduced her power by making Delos, her rival, a free port, the coinage shrank to small dimensions. But in the first century during the Mithradatic war there was a partial revival, and the Ptolemaic standard seems to have been employed for certain coins with the reverse type of a full-blown rose seen from the front [Pl. **LXII**, 2]. These pieces were presently followed by large coins of bronze with identical types and representing drachms; but they were, of course, really no more than token money. On some of these big coins new types appeared, a head of Dionysus and the figure of Nike usually upon a prow [Pl. **LXII**, 1]. This, there can be little doubt, is a poor late version of the finest of all the surviving Rhodian works of art, the Nike of Samothrace, who, if the coins are to be trusted, carried a palm-branch in her left hand and an *aplustre* in her right¹.

B. THE AETOLIAN LEAGUE

In the full classical period the Aetolians had been among the most backward and unimportant of the Greek peoples; but in the second century they rose to great power in consequence of their defeat of the Gauls who invaded Greece in 279 B.C., and in commemoration of this exploit they issued coins the types of which bore an allusion to their victory. At Delphi they had set up a trophy "together with an image of an armed woman, no doubt representing Aetolia²," dedicated after they had chastised the Gauls, and this statue was selected by the Aetolians as their blazon combined with obverses like those on the Alexander coinage. Gold staters and half-staters were issued, the head of Athena on the former being a close copy of the obverse of the contemporary stater minted by King Pyrrhus in Syracuse [Pl. **LXII**, 3]³, and the head of Heracles on the half-unit resembling that upon a similar denomination of the days of Philip

¹ The bronze coins are to be dated *ca.* 31 to 27 B.C. for they have their exact parallels in Roman denarii of Augustus issued between those years in an imperial mint in Asia Minor (conceivably in Rhodes itself); see H. Mattingly, *B.M.C. Roman Emp.* i, p. cxxiii, and Pl. 15, 6, 7.

² Pausan. x, 18, 7.

³ P. Gardner, *B.M.C. Thessaly to Aetolia*, p. lvii; B. V. Head, *H.N.* p. 335.

of Macedon. Both reverses bore a picture of the statue at Delphi, as did the silver tetradrachms, which show the figure seated upon a pile of shields, one of Macedonian shape sometimes inscribed **ΛΥ**, another of Gaulish shape sometimes inscribed **A**. The latter is doubtless the initial of the Gallic chieftain Acichorius, the former the first letters of the name of Lyciscus, a Macedonian general whom the League had defeated in the days of Cassander. These Attic-weight tetradrachms [Pl. **LXII**, 4], with their Heracles-head obverses and with their reverses having seated figures, might circulate freely in the company of Alexander coinages.

For local circulation the League issued coins on a different standard, the Corcyrean, which prevailed in Aetolia, Acarnania, and Epirus, the largest coin being a tetradrachm with a young male head wreathed and diademed and, on the reverse, a figure of a youthful hero, probably Aitolos, resting on a spear, his right foot upon a rock [Pl. **LXII**, 5]. The obverse head has been regarded as the portrait of a Hellenistic prince¹, but cannot be identified with any certainty. Smaller denominations have varied types including a head of Aetolia and the Calydonian boar.

C. THE ACHAEAN LEAGUE

The rise of the Achaean League in the Peloponnese was almost contemporary with that of the Aetolians in northern Greece. After its brief existence in the time of Epaminondas², the League lapsed until its reconstruction about 280 B.C., when Patrae and Dyme expelled their Macedonian garrisons. Within five or six years they were joined by four other Achaean cities and the organisation of the Confederacy began to take definite shape; but its real power dated from 251 B.C., when the Argive Aratus drove the tyrant Nicocles out of Sicyon and brought that prosperous city into the fold of the League. In the following half century most of the Peloponnesian states became members, and agreed to the issue of silver and bronze coins uniform with those of all the other cities of the Confederation, for it was a part of the League's constitution that its members should have identity of laws, weights, measures, and coinage³.

¹ B. V. Head, *loc. cit.*

² For the coins of this earlier League see p. 166 f.

³ Polyb. ii, 37.

This abundant and insignificant coinage consisted of triobols on the Pheidonian standard and coarsely designed bronze pieces. On the former was a head of Zeus and a large monogram consisting of the letters **AX** in a wreath, while beside the monogram was set the mark of a magistrate and under or over it the badge of the issuing city, as, for example, the dove of Sicyon, the Pegasus of Corinth, or the wolf's head of Argos [Pl. **LXII**, 10, 9]. The types of the bronze coins were a standing Zeus Amarios¹ with Nike and sceptre, the god in whose sanctuary at Aegium the League Assembly met, and the figure of a seated woman, who is probably a personification of Achaia corresponding to the personified Aetolia on the money of the northern League [Pl. **LXII**, 11]. Beside this figure appeared both the name of the Achaeans and that of the citizens in whose state the bronze piece was struck; **ΑΧΑΙΩΝ ΣΙΚΥΩΝΙΩΝ** or **ΑΧΑΙΩΝ ΚΟΡΙΝΘΙΩΝ**, to cite two examples. Among the latest states² to be forced into the League were Elis, Messene, and Sparta, the last in 192 B.C. employing as its distinctive badge the caps of the Dioscuri.

D. SPARTA

Thus Hellenistic Sparta, which throughout the classical period had refused to sanction the use by its citizens of anything but iron *obols*³, becomes in the end an issuer of silver coins.

The money that Lacedaemon struck as a member of the Achaean League was not, however, the earliest Spartan coinage, for that began to appear early in the third century soon after the Successors had commenced to set their names on the Alexander coinage. In 280 B.C. **Areus**, king of Sparta, feeling himself the equal of any of the eastern kings, began to issue Alexander tetradrachms of Attic weight with Alexander types, but inscribed **ΒΑΣΙΛΕΟΣ** (*sic*) **ΑΡΕΟΣ** [Pl. **LXII**, 6]. About 228 B.C. **Cleomenes III** for his war against the Achaeans also proceeded to strike tetradrachms, this time on a Seleucid model, for the diademed head of King Cleomenes resembles that on some of the western issues of Antiochus II. On the reverse between **Λ** and **Α**, initial letters of the Laconian name, is the archaic

¹ A. B. Cook, *Zeus*, i, p. 16 f.

² For a complete list of the coin-issuing members of the Achaean League see B. V. Head, *H.N.* p. 417 f.

³ See p. 33 f.

image of the celebrated Apollo of Amyclae helmeted and holding spear and bow [Pl. **LXII**, 7]. It is the same god's head¹ that appears on the next issue of Spartan tetradrachms, which must have been minted some time after the disastrous battle of Sellasia in 222, perhaps about 207 B.C. The reverse of these pieces, like the obverses of the former issue, drew upon a Seleucid model, copying the seated Heracles of the Anatolian coins of the second Antiochus.

The type was continued by **Nabis**, who reigned from 207 until his defeat by the Romans and Achaeans in 192 B.C., but on his later tetradrachms he replaced the helmeted head of the god of Amyclae by his own portrait, laureate, bearded, but in true Spartan fashion with shaven upper lip. On the reverse beside Heracles he set his name **ΒΑΙΛΕΟΣ ΝΑΒΙΟΣ**, the Laconian dialectic form of βασιλέως Νάβιδος² [Pl. **LXII**, 8]. This, the last independent silver coin of Lacedaemon, was followed by the ugly little Pheidonian triobols struck by Sparta as an unwilling member of the Achaean League.

E. ATHENS

The extraordinary regard in which Athens was held alike by Macedonian kings and Roman proconsuls, combined with her possession of the silver mines of Laurium, resulted in her retaining the right to coin silver for a longer period than any other Greek state.

Antipater, Cassander, and Demetrius the Besieger, though they all interfered in Athenian politics, appear to have continued the policy of Philip and Alexander in allowing Athens the full rights of autonomous coinage. The relations of Demetrius to the Athenian reserve fund, which had been reconstituted after 339 B.C. under the management of Lycurgus and was stored on the Acropolis, are, however, not above suspicion. Ample evidence from inscriptions shows that the treasures which constituted this reserve remained intact until early in 304 B.C. Then something must have occurred to bring about their disappearance, for after that date records of the Treasurers of the Goddess cease abruptly³

¹ E. J. Seltman, *N.C.* 1909, p. 1 ff.

² P. Perdrizet, *N.C.* 1898, p. 1 ff.

³ The records of the ταμίαι τῆς θεοῦ are continuous from 321 to 310 and from 307 to 304 B.C. *I.G.* ii, 721 and following. *I.G. ed. minor* adds nothing later than 304; neither does the *Supplementum Epigraphicum*.

and never reappear. Now in the autumn of 304 B.C. Demetrius arrived to winter in Athens, residing with numerous mistresses in the *opisthodomos* of the Parthenon. Since he claimed Athena as his elder sister¹, he could freely borrow her treasures to pay his debts and to finance his Peloponnesian campaign in the following year.

The removal of his influence and that of his partisans, consequent on his defeat at Ipsus in the summer of 301 B.C., left Athens the prey to military factions headed by the hoplite commander Charias and the general of the mercenaries, **Lachares**; and the latter crushed his opponent and assumed a kind of dictatorship in March, 300 B.C.² Two years later his position was so secure that he was ranked as a tyrant of whom Pausanias recorded that "he was the most merciless to men and the most reckless of divinity³." The one thing most essential to Lachares, if he was to maintain his position, was money to pay his mercenaries; and the Acropolis, we have seen reason to suppose, was denuded of its treasures. One resource only remained. Pericles at the beginning of the Peloponnesian war had told the Athenians that in the last extremity they could melt the gold plates laid upon the statue of Athena, which were detachable and weighed forty talents. This extremity Lachares now felt to be at hand and "he took the clothes off Athena⁴."

Forty talents of pure gold to turn into coin, this was enough to tempt any tyrant and to earn him the blackest name. Yet the reflection may be permitted us that the few coins of this issue, mainly gold staters, are all that survive to the present day of Pheidias' gold and ivory statue of Athena. The types were the normal ones for Attic coinage; the head of the goddess, the owl, olive twig, and **ΑΘΕ** [Pl. **LXII**, 12]; but before the owl, as a distinguishing mark, was set a small *kalathos*, or wool-basket, an object, sacred to the virgin goddess, which had already appeared in the preceding century upon some small silver coins, and which figured on later Athenian issues of bronze⁵.

¹ Plut. *Dem.* 24.

² For details see W. S. Ferguson, *Class. Philol.* 1929, p. 1 ff.

³ i, 25, 7.

⁴ Plutarch, *de Is. et Osir.* 71; confirmed by Pausan. i, 25, 7; Demetrius Comicus, *Areopagites*, ap. Athen. ix, 405; and Phlegon of Tralles, fragment *Pap. Oxy.* xvii, 2028. The shields which Lachares also melted were not of gold, but of gilt bronze; see J. G. Frazer, *Pausanias*, ii, pl 326.

⁵ Some of these may be *bakchos-rings*, see Beazley, *N.C.*, 1941, p. 1.

Demetrius the Besieger, returning to Greece in 297 B.C., invested Athens in the following year; and at the end of the siege, in which the inhabitants suffered more from famine than they had endured at the end of the Peloponnesian war, Lachares fled in March 295 B.C., and Demetrius established a garrison upon the Museum Hill a year before he secured the throne of Macedon. He did not, however, interfere with the Athenian privilege of issuing silver coins.

During this period Zeno, the founder of the Stoics, was teaching in Athens and he is alleged¹ to have drawn a moral from the current coin of his day, "for he said that polished and carefully composed speeches were like the Alexander silver coinage; pleasant to behold and well-rounded like that money, but none the better for all that. As a contrast he compared them with the Attic tetradrachms carelessly and roughly struck, yet at any rate often weighing down the scales against beautifully written discourses." This statement of Zeno's is borne out by the coins themselves, for ten Attic tetradrachms of the day would weigh about 2 grammes more than ten contemporary tetradrachms of Alexander type²; and, though here and there a well struck piece of the period may be found [Pl. LXII, 13], they are generally coarse both in design and in execution [Pl. LXII, 14]. Yet for all their archaism, for all their disregard of form, one may pardonably prefer them to the smooth round products of Antioch, Alexandria, and Hellenistic Syracuse, which are aesthetically cloying, and one must prefer them to the round flat coins minted after 230 B.C. in Athens itself.

Late in 262 B.C. Antigonus the "Knock-kneed" captured Athens, which in the Chremonidean war had endeavoured to secure complete independence of Macedonia. The Museum Hill, Piraeus, and all the forts now received Macedonian garrisons; the franchise was probably limited; and Athens, bound over to be of good behaviour, seems to have been deprived for a few years of the right to coin silver³.

¹ By Diog. Laert. *vita Philos.* vii, 1, 19.

² This result is obtained by taking the average weight (16.88 g.) of 18 Alexander coins of Demetrius given by E. T. Newell, *Coinages of Demetrius Poliorcetes*, pp. 19 to 23, and the average weight (17.08) of the first 18 Athenian tetradrachms shown by J. N. Svoronos, *Trésor des Monn. d'Athènes*, Pl. 20.

³ W. W. Tarn, *C.A.H.* vii, p. 220, thinks not; but there is a gap in the coinage between the last old style tetradrachms without symbols, and the rare old style pieces with symbols.

Of the Antigonid tetradrachms with the head of Pan and the fighting Athena [Pl. L, 8] there are some which have beside the figure a small *kalathos*. It is possible that the Athenian mint-apparatus may have been employed to make these coins as pay for the Macedonian garrison, but not certain¹.

Six years of discipline appeared to Antigonus sufficient, for in 255 B.C. he withdrew all his garrisons save those at Piraeus, Sunium, and Salamis, and Athens again became the most favoured city of Greece, with full monetary rights. During the next quarter of a century the old types accordingly revived, but in enfeebled guise, with the owl in a circular depression and a magistrate's symbol beside it [Pl. LXIII, 1, 4]². Tetradrachms, drachms, pentobols, tetrobols, and smaller fractions as well as numerous bronze coins were issued². Upon some of the last the owl or owls were encircled by a large wreath of olive, a foretaste of the design to come.

A new era of remarkable prosperity opened for Athens in 229 B.C. No longer the centre of literature and art in Greece, no longer a great power with an efficient fleet, she nevertheless held the respect of the world as the chief centre of learning and as the wealthiest commercial state, by far, of the Aegean. There are, indeed, several reasons for supposing that her wealth was suddenly augmented in no small degree during the second half of the third century, and that for nearly a century and a half the supply was maintained. The source of this was Laurium, where deeper and richer veins were presumably tapped. Individual rich citizens once more came to the fore; for example the wealthy Eurycleidas of Cephissia spent large sums out of his own pocket both on restoring the Dionysia and on reviving agriculture; and the state was rich enough by 229 B.C. to buy out the last Macedonian garrison of Piraeus and thus to achieve actual liberty. From this date down to the sack of the city by Sulla Athens issued a far greater number of tetradrachms than Carthage, Syracuse, or Rhodes, than the kings of Macedon and Pergamum, more than any state saving only Syria and Egypt.

One of the first charges on an exchequer suddenly replenished must have been the reparation of the sacrilegious theft committed

¹ A corpus of the coinage would be required before this point can be decided.

² J. N. Svoronos, *op. cit.* Pls. 23, 24. Symbols on silver, bucranium, shield, gorgon, cicada, trophy, prow, torch, *cornucopiae*, trident, amphora, quiver; on bronze, amphora, lamp, *kalathos*.

by Lachares, and it is extremely probable that sufficient gold was purchased to clothe Athena anew and that her robe was completed about 230 B.C. This would account for the fact that the Parthenos, now visible to the world once more, attained a new celebrity sufficient to warrant a change in the Marathonian¹ obverse type of the coins. The head in close-fitting Attic helmet with upright olive leaves vanished, and was replaced by that of the triple-crested Parthenos of Pheidias, a Pegasus on the side of her helmet and the foreparts of horses on the front. On the reverse, within a heavy wreath of olive, was the owl standing upon the side of a Panathenaic amphora [Pl. LXIII, 2, 3]. Large flat circular coins they were with reverses that were soon to become overloaded with magisterial names, symbols, and elaborate control-marks—ugly coins. The Athenian bureaucrats had taken Zeno seriously and had produced polished, carefully rounded pieces, without the force and character of the Alexander money; they had made an academic coinage, the popularity of which in an academic age was attested by its many imitations.

The earliest class of these tetradrachms and drachms had on the reverse, in addition to the types, two monograms and a magistrate's symbol [Pl. LXIII, 2]; the second class, beginning about 196 B.C., expanded the monograms into two abbreviated names [Pl. LXIII, 3]. Imitations began even before this innovation, for in the first war of the Romans against Philip V of Macedon about 200 B.C. both Athens and the Cretans found themselves on the side of Rome. The people of Crete, raising an army to send to Greece, coined for the payment of their troops tetradrachms which were imitations of Athenian pieces, but which, in place of magistrates' names and a symbol, bore the name of a city and its miniature device. Cnossus [Pl. LXIII, 5], Cydonia, Gortyna, Hierapytna, Lappa, Polyrrenium, and Priansus were among the cities which took part in this issue².

It was not long after this that some of the cities of Ionia proceeded to imitate this large round coinage, notably Heraclea, Lebedus, and Priene; while about 168 B.C.³ the Thessalian Aenianes of Hypata produced a copy of the Pheidian Athena-

¹ See p. 92 above.

² J. N. Svoronos, *op. cit.* Pl. 113.

³ In this year Delos was made a free port and transferred to Athenian control (*C.A.H.* viii, p. 289), an event which both added to the prosperity of Athens and necessitated an increase in coinage; since Athens now supplied the cash for trade in Delos.

head on their didrachms. But attempts at imitating the Athenian types were to be found much farther away, for the Himyarites of south Arabia¹ began about 115 B.C. to issue extraordinary pieces with a male head within a wreath upon one side and an owl upon the side of an amphora and an Arab inscription on the reverse [Pl. LXIII, 6], whence it may be concluded that the thin Athenian tetradrachms travelled in the course of trade as far afield as the older thick pieces.

By the time the third class of Athenian tetradrachms began to be minted, about 186 B.C., the system of official control had been fully elaborated. Each coin bore the names of two honorary officials, one of whom was always an ex-archon; both held office for a year, and the one whose name stood first set his personal symbol or badge in the coin's field. In addition there was a committee of twelve Areopagites responsible for the money, and these served in rotation, one a month setting his name as third upon the money. But there was a further check; for the body of the amphora bore a letter, A, B, Γ, etc., down to M or N, which indicated the lunar month and which therefore had to be altered upon the die, if the die lasted long enough, every four weeks. Lastly below the amphora were set certain letters which probably served to indicate the name of the mine whence the silver had been procured. This highly complicated system of checks and counter-checks, which would have been wasteful for any but a very plentiful coinage that used up dies speedily, is a sign of the Athenian delight in complicated accountancy, and finds a parallel on no currency earlier than the paper and bank-notes of modern times.

Since the post of first magistrate was purely honorary, it was occasionally the custom to confer the office upon eminent foreigners. One of the first of these was Prince Antiochus in 176 B.C., the prince who presently became Antiochus IV "god manifest." As first magistrate he set upon the coinage his name and blazon, the Seleucid elephant [Pl. LXIII, 7]. A few years later he was to repay the compliment handsomely, when he began the building of the Olympieion at Athens. In 169 B.C. a Cappadocian prince, Ariarathes, was appointed a monetary magistrate. But learning was honoured as well as royal blood,

¹ G. F. Hill, *B.M.C. Arabia etc.* p. liv ff. These Arabs began by copying the older type of Athenian money.

for about 100 B.C. Apellikon of Teos, the philosopher, became first official and took the blazon of his native city, the griffin, as his symbol [Pl. LXIII, 8]. He appears to have been twice appointed, and each time the Athenians showed a whimsical sense of humour by nominating as his colleague a man with the name of a historical philosopher; first Gorgias, then Aristoteles.

Twelve years later Athens made a fatal mistake; she took the wrong side in the war of Sulla against Mithradates. Aristion, a Peripatetic philosopher, the partisan in Athens of the king of Pontus, controlled the city and among other offices held the post of hoplite general and first monetary magistrate. He set his name upon the coins and openly declared for the king by adopting the drinking Pegasus¹, the Mithradatic coin-type, as his symbol [Pl. LXIII, 9]. In the following year he was rewarded by a supply of gold sent from the East, gold from which Athens struck her third gold issue during the miseries of the siege of the city by Sulla. Mithradates got his full meed of honour upon the gold staters and the contemporary silver tetradrachms of 87 to 86 B.C. He was appointed first mint official *in absentia*, and his personal blazon, the star and crescent of Pontus², was the symbol on the money [Pl. LXIII, 10]; Aristion was second magistrate.

Sulla sacked Athens, but forebore to burn the city, and subsequently paid a tribute to the popularity of Attic money. For after his two victories over Archelaus, the general of Mithradates, at Chaeronea and Orchomenos in 86 and 85 B.C. he struck tetradrachms of Athenian type to pay his troops. These coins bore, instead of any inscription, a pair of trophies as memorials of the two battles [Pl. LXIII, 12].

For Athens it was not the end, nor was it for the coinage of Athens, though not another mint was now striking silver in Greece. The populace had suffered terribly in the siege and subsequent massacre, but since most of the well-to-do had left to join Sulla³, the city was presently reorganised and coinage began anew. But the wealth and commercial prosperity of Athens were gone for ever, for Sulla's destruction of Piraeus delayed the recovery of trade; and, more important, the mines of Laurium were showing signs of giving out. It was only as the chief seat of learning that Athens was still pre-eminent; and,

¹ See p. 237.

² See p. 237.

³ Pausan. i, 20, 5.

since her status was that of Ally of the Roman People, she could continue to coin silver.

Tetradrachms appear to have been issued for most years between about 80 and 40 B.C. and by the last date a characteristic epigraphic change had taken place, Ω giving place to Ω. Untouched by the wars of Caesar and Pompey, and of Octavius and Antony, Athens continued on her way. The mints of Macedon and Syria, of the Leagues and city states had been closed or had become Roman *officinae*, and Actium put an end in 31 B.C. to the Ptolemaic coinage of Egypt. Athens alone carried on and might have been some embarrassment to Augustus, who now proceeded to the financial and monetary organisation of the mints of the empire¹. The city which had been allowed free coinage by Philip and Alexander, by Macedonian kings and Roman proconsuls, by Sulla and Julius Caesar, could hardly be deprived of its ancient privilege by Caesar Augustus, anomalous though Athenian money was in a well-organised empire.

Then Fate, or Nature, came to the aid of Rome and settled the matter. The silver mines at Laurium gave out. The Athenians used up their last veins of silver to strike a few drachms; tetradrachms they could no longer afford; the latest surviving, struck perhaps about 25 B.C., has the names of two magistrates, Dionysius and Demostratus², and a little caduceus as symbol beside the owl [Pl. LXIII, II].

Strabo a few years later saw a few workmen endeavouring to extract silver from the old slag-heaps by resmelting³; Pausanias wrote of "Laurium, where the Athenians once had silver mines⁴."

For close on six centuries from the archonship of Solon to the principate of Augustus Athens had coined silver, and her mint had enjoyed a longer and more illustrious record than that of any other state.

¹ H. Mattingly, *B.M.C. Roman Empire*, i, Introd.

² On this coin Σ is replaced by the later Γ.

³ Strabo, ix, 399.

⁴ i, I, I.

EPILOGUE

PERHAPS no study so successfully combats the error of separating history into watertight compartments as the study of numismatics. Here if anywhere in the surviving monuments of the past there is a perfect continuity discernible; for, from the first coin struck by a Lydian monarch to the penny that you take from your pocket, there is an unbroken line.

The foregoing chapters have described how coined money was invented in Asia Minor and its use familiarised to the Mediterranean world principally by Athens; how the types of Philip spread to Yorkshire, and those of Alexander and his successors into India; how Rome borrowed her badges and the employment of coined money from the Greeks.

Actium, like Chaeronea, might mark the end of a period in the world's history, but the current of coinage flowed smoothly on with the portrait of Caesar set where the head of the king had usurped the place reserved for the head of the god. From the Roman coinage sprang the long line of golden Besants struck by the emperors of Greek Byzantium; and these in their turn served as models for the feudality of mediaeval Europe, the kings and princes of which set portraits upon their money. Then the art of the brilliant die-sinkers of the Italian Quattrocento, inspired as it was by classical models, supplied fresh stimulus to a custom that had long won the approval of Church and State. Thenceforward the portrait upon the coin of the realm became at the best a work of art, at the worst a recognisable likeness. Thus wherever monarchy survives to our day the royal features upon the current coin are still part of the heritage of Alexander.

This continuity, however, is not confined to the Old World but stretches across to the New, which has derived its coinage from Europe. It is the same sense of the debt of a nation to a historical figure, which caused the Alexandrians to keep alive on their coins the memory of the saviour Ptolemy and which now causes the United States to keep alive on their cents the memory of Abraham Lincoln. Britannia on our penny is no more than a copy of Roma upon some imperial sestertius, and this Roma is a copy of the Athena on the coins which King Lysimachus struck to glorify the divine Alexander.

Art cannot, of course, afford the same continuity as history, for in whatever medium you may choose the greatest art is so rarely produced that its manifestations stand up like peaks above the clouds.

Many fine dies have been made by die-sinkers since the fifth century before our era, and many myriads that were mediocre or bad. The Roman coinage, starting as an appendage to the western Hellenistic Greek, began under a severe handicap and took centuries to climb out of mediocrity to the height of art. But it achieved this in the latter days of the empire, when the engravers who worked for Diocletian, Maximianus, and Constantine the Great, right on to the age of Justinian, discovered a new medallic art which combined in impressive form dignity with austerity.

Gothic Europe produced exquisite examples of craftsmanship in the elaborate patterns of its coins, but they were not the very highest art, for such was only to make one more appearance.

Antonio Pisano, known as Pisanello, a native of fifteenth-century Verona, was the first and the greatest by far of the medallists of the Italian renaissance. Though the medallic art of Italy began as a revival of classical art it assumed, at any rate to begin with, an original and national character; and a portrait by Pisano was as far superior to the coin portrait of any one of the first twelve Caesars as was the head of the Bactrian Demetrius to a head of his contemporary, Antiochus the Great. Indeed the work of the early Italian medallists may best be compared with that of the die-sinkers who worked for the Greek kings of Bactria.

None the less, neither the one nor the other can be called the equal of some of the Greeks of the fifth century before our era. Heracleidas of Catana, Kimon and Euainetos at their best, Da... who worked in Olympia, an artist here, another there, in Amphipolis, Syracuse, or Eretria, at Acanthus, Mende, or Troezen, the genius who made Hermes on the earlier coins of Aenus, and the master of Aetna and Sicilian Naxos [Pl. **LXIV**], they are to be set before all others.

Beauty is desirable; but not without austerity. So far, in the world's history, the Greek alone has achieved the perfect combination of these two, and has produced the best.

INDEX

Note (S) = symbol : (T) = type or device.

A

- Abdemon, 154
 Abdera, Abderite, 64 ff., 79, 104, III,
 118, 139, 141 ff., 149 f., 152, 180
 Abernabra, 209
 Abydos, 181 f.
 Abyssinians, 116
 Acanthus, Acanthian, 66, 68, 105, III,
 140 f., 150, 181, 155, 198, 266
 Acarnania, 255
 Accad, 10 f.
 Achaea, Achaean, 14, 166 f.
 Achaean League, 164, 166 f., 255 ff.
 Achaeans (Bronze age), 4 f., 8, 13, 18,
 33
 Achaia personified, 256
 Achelous (T), 120, 122
 Achilles, 5
 Acichorius, 255
 Acragas, Agrigentine, 72, 75 f., 78,
 101, 104 f., 129, 135 ff., 189, 194
 Acragas restored, 194
 Acrocorinthus, 39
 Acropolis of Athens, 16f., 53, 58 f., 74,
 122, 137, 257 f.
 Actaeon (T), 181
 Actium, battle of, 264 f.
 Adjunct types, *see* Symbols
 Adramytium, 239
 Adranum, 194
 Adriatic, 70, 124, 211
 Aedui, 215
 Aegean, 4, 8, 41, 90, 95, 179
 Aegina, Aeginetan, 12, 34 ff., 38 ff.,
 42 f., 53, 55 f., 82, 92 f., 95, 98, 107,
 111, 117, 162, 169, 174
 Aegium, 166 f., 256
 Aegospotami, 138, 157
 Aemilius Paullus, 226
 Aenia, 66 f.
 Aenianes, 261
 Aenus, 141 f., 145, 150, 152, 155, 266
 Aeolia, Aeolis, Aeolic, 14, 18
 Aeschylus, 43, 106, 131
 Aetna, Aetnean, 131 ff., 266
 Aetolia, Aetolian, 225, 254 f.
 Aetolia personified, 254 ff.
 Aetolian League, 254 f.
 Africa, African, 8, 80, 82, 124, 128,
 245 f., 249
 Agamemnon of Cyme, 14,
 Agathocles of Syracuse, 189 f., 201,
 228, 245 f., 249
 Agesilaus, 185, 194
 Aglaosthenes, 15
 Agrigento, 72
 Agyrium, 194
 Agyrrius, 110
 Ahura Mazda, 185, 230
 Aitolos (T), 255
 Ajax, Locrian (T), 159, 168
 Akakallis, 171
 Ake, Alexander mint, 210
 Akragas, hero (T), 136
 Alaesa, 194
 Albania, 70
 Alcibiades, 137
 Alcinous, Gardens of, 70
 Alcmaeon, 46, 62
 Alcmaeonidae, 46 ff., 50 ff.
 Aleuad, Aleuadae, 89, 161
 Aleuas the Red (T), 161
 Alexander of Epirus, 195, 247
 — I of Macedon, 89, 139, 214
 — (the Great) 24, 38, 110, 152, 156,
 181, 186, 195, Ch. XII, 234, 241, 257,
 261, 264 f.
 — — aspects of his government, 214
 — — attacking Porus (T), 213
 — — coinage, duration of, 214, 218 f.,
 224, 227, 237, 239, 240, 246 f., 254,
 256, 259
 — — deification of, 213 f.
 — — in elephant car (T), 241
 — — mints; diagram of, 217
 — — mints; map of, 216
 — — portrait, 214, 219, 221, 240
 — — royal title begins on coins, 211
 — — story of indebtedness, 207
 — — two-horned, 214, 219, 221 f.
 — IV of Macedon, 218 f., 240
 — of Pherae, 161
 — Balas of Syria, 232 f.
 Alexandretta, 209
 Alexandria ad Issum, 209, 211
 — by Egypt, 230, 244 f., 248, 259, 265
 — — foundation of, 210, 212
 — — Alexander mint, 212
 Alliance coins, *see* Confederacies
 Allobroges, 215
 Alphabet, "Phoenician," 64
 Alpheus, 74
 Alps, 250
 Alsace, 201
 Altar (S), 129, 135
 Altis, 96 f., 167
 Alyattes, 16, 25, 30, 60

Amadocus, 144
 Amathus, Alexander mint, 209, 211
 Ambracia, 22, 117 f., 192 f.
 Amenhotep III, 9, 164
 America, 160
 Ammon, Oasis of, 183, 210
 — Zeus, 183, 221, 223, 240
 Amon-Ra, 183, 240
 Amphictyons, 203, 214
 Amphipolis, 114 ff., 126, 134, 141 f.,
 146, 150, 198, 200, 222, 225, 266
 — Alexander mint, 202, 206 f., 211 f.
 Amphissa, 202
 Amphithemis, 159
 Amphora, oil- (T), 43 f., 45
 — Panathenaic, 204, 261
 — pointed (T), 40
 — prize (T), 144
 — Tyrhenian, 43
 — wine (T), 67, 95, 118, 146, 156,
 159 f., 174
 Amyntas III, 198
 Anactorium, 117
 Anatolia, Anatolian, 14, 19
 Anaurus, 89
 Anaxilas of Rhegium, 99 ff., 105, 121,
 134
 — — his personal badges, 101 f.
 Anchor of Seleucus, 227 f.
 Andritsaena, 38
 Androkleidas, 159
 Andros, 59, 68
 Androtion, 93
 Ankh (T), 64, 153
 Antalcidas, Peace of, 158, 182
 Antigonus of Carystus, 162
 — House of, 219 ff.
 — I, "one-eyed," 219, 221, 224
 — II, "Knock-kneed," 222 ff., 225,
 259
 — — as Pan, 223
 — — III, "the Liberal," 224
 Antimachus of Bactria, 234
 Antioch (Antiochia ad Orontem),
 227, 230 ff., 244, 259
 Antiochus I, 229
 — II Theos, 229, 234, 256 f.
 — III, the Great, 215, 229 f., 243, 253,
 266
 — infant, 230
 — IV Epiphanes, 228, 230 ff., 235,
 243 f., 262
 — — in Athens, 230, 262
 — V, 231
 — VI Dionysus, 232
 — VII, 232 f.
 — VIII, 233
 — XIII, 233
 Antipater, 208, 211, 218, 222, 257
 Antiphellus, 153

Antonine age, 107
 Antony, 245, 264
 Apamea (Phrygia), 239
 — (Syria), 232
 Apellikon of Teos, 263
 Aphrodite (T), 36, 54, 67, 148, 157 f.,
 181
 — Melainis, 158
 Apollo, 25, 98 f., 129 f., 144, 146, 171
 — (T), 79, 103, 108, 115 f., 120 f., 126,
 128, 134, 143, 157 ff., 172, 182, 186 ff.,
 198 ff., 229, 251
 — Alexikakos (T), 129
 — Amyclaeon (T), 257
 — Carnean (or Karneios), 98, 120
 — of Daphne, 231
 — Delian, 224
 — Delphinian, 98, 159
 — Hylates, 153
 — Pythian, 144, 172, 203
 — Triopian, 149
 — ancestor of Seleucids, 229, 231
 — cult statue (T), 143
 — magistrate, 143
 — on Omphalos, 203, 229 f., 232, 236
 — priest of, 143
 Apollonia (Illyria), 70
 Apple (T), 40
 Apter, Apteraean, 171 f.
 Apteras, 172
 Arabia, Arab, 154 f., 211, 262
 Aradus, 172, 184
 — Alexander mint, 210
 Aramaic inscriptions, 185
 Aratus, 255
 Arcadia, Arcadian, 14, 38, 55, 97, 107,
 164 ff., 169, 171, 173
 Arcadian League, 164, 171, 173
 Arcesilas, 182
 Archelaus I, of Macedon, 139, 142, 161,
 198
 — Pontic general, 263
 Archer kneeling (T), 172
 Archias, 191, 193 f.
 Archidamus, king of Sparta, 194 f.
 Ardasher, 236
 Ardys, 16 f., 19, 25
 Areopagites, 262
 Ares, 139, 142, 185, 198
 — Ludovisi, 166
 Arethusa, 74, 102, 125 ff., 146, 160,
 185 f., 191
 Areus of Sparta, 256
 Arginusae, 137
 Argolis, 111
 Argos, Argive, 12, 14, 20, 34 ff., 42, 95,
 143, 148, 168 f., 225 f., 255 f.
 Argyrocastro, 70
 Ariadne head (T), 171
 Ariarathes, 262

- Aristagoras, 87
 Aristion, 263
 Aristophanes, 46, 58, 73, 109, 138, 177 f.
 Aristoteles (magistrate), 263
 Aristotle, 33, 44, 46, 101
 Arkas, 166
 Armenia, 229, 233
 Arrhidaeus, 218
 Arrian, 207 f.
 Arsaces, Arsacid, 236 f.
 Arsinoe II, 223, 241 ff., 247 f.
 — — deified, 242
 — III, 243
 Artaxerxes I, 108
 — II, 184
 Artemis, 90, 103, 129, 172
 — head (T), 196, 226, 247
 — Arethusa, 74, 125, 148, 192. *See also* Arethusa
 — huntress (T), 249, 251
 — Laphria, 167
 — Ortygia, 74
 — Soteira, 188
 — Stymphalia, 166
 — on stag (T), 181
 Artemision, 15 ff., 42.
 Artemisium, 101
 Artemon, 143
 Artists, *see* Engravers, Sculptors, Vase-painters
 Arverni, 201, 215
 Aryandes, 63
asafoetida, 182
 Ascalon, 244
 Asia, I
 — Roman Province of, 32, 239
 Asia Minor, 14, 18 f., 60, 80, 108, 146 ff., 177, 201, 221, 229, 239, 252 f., 265
 Asklepios, 165
 Ass (T), 67, 140
 Assembly pay, 110
 Assinarus, 127
 Assyria, Assyrian, 19, 153
 Asterope, nymph, 136
 Astragalos (T), 47
 Athena, 16, 49, 54, 87, 88, 114 f., 120, 123, 126, 153, 160, 172, 180 f., 192, 204, 218, 221, 233, 238 f., 246, 249, 251, 265, and Athens *passim*.
 — Chalinitis, 54, 117, 192
 — Chryselephantine, 258
 — Ergane, 58
 — Itonia, 55, 58
 — Janiform, 58
 — Nike, 122
 — Pallas, 74
 — Parthenos, 113, 126, 261
 — Promachos, 87, 204, 210, 225, 240, 247, 260
 — — winged (T), 246
 — clothes removed from, 258
 — — restored, 261
 — head, treatment of hair, 108
 — in elephant car, 229
 — “sister” of Demetrius, 258
 Athena, unhelmeted, 111
 — with *aplustre*, 113
 Athenian coins, imitations of, 154
 Athenian colonies, 114 ff.
 Athenian defeat at Syracuse, 126 ff., 130
 Athenian fleet at Samos, 147 f.
 Athenian mint at Samos, 147
 Athenian monopoly of silver coinage, 111 f.
 Athenian tribute lists, 68, 141
 Athenian types at Cyzicus, 113
 Athenians' subject allies, 110 ff., 139 ff., 146 f., 150 ff.
 Athens, Athenian, 4, 12, 14, 16 f., 22, 28, 36, 39 ff., Ch. IV, 62 f., 67, 71, 73 f., 76, 82 ff., 91 ff., 98, 104 f., Ch. VII, 117, 127, 133, 136, 139 ff., 145 ff., 156 ff., 164, 174, 176 ff., 182, 185, 198, 202, 204 ff., 223, Ch. xv
 — early coins, 43 ff.
 — fall of, 137 f., 140, 156, 177
 — new tetradrachms, 261 ff.
 — — — imitations of, 261 f.
 — revival of, 177
 Athlete (T), 149
 Atomist, 143 f.
 Attalids, 238 f.
 Attalus I, 239
 — II, 232, 239
 — III, 239
 Attic art, 115, 118 f., 122, 145
 — Standard, *see* Standards
 Augustus, Octavius, 20, 245, 254, 264
 Aulis, 54 ff.
 Avernus, 122
 Azbaal, 154
 Azerbaijan, 215

B

- Ba'al, Ba'alim, 185, 205, 211, 230 f.
 Ba'al Tars, 208 f.
 Baalmelek I, 154
 — II, 154
 Baalam, 154
 Babylon, 8, 82, 104, 205, 209 ff., 227, 232
 — Alexander mint, 211 ff.
 Babylonia, Babylonian, 3 f., 8, 11, 24, 205, 219, 231

Babylonian Standard, *see* Standards
 Bacchus Hebon, 122
 Bactra, Bactria, Bactrian, 211 f., 228 f.,
 233 ff., 266
 Baden, 201
 Balkans, 219, 222
 Balkh, 212
 Bambyce, 209
 Bank, origin of, 9 ff.
 Banker's table, 181
 Banking, Athenian, 179
 Barbarian coins, 196 f., 219, 227, 262
 Barbarians, 116
 Barce, 182 f.
 Barley ear, 79
 Barter, 1 ff.
 Battos I, 82
 Bay-laurel (T), 172
 Bay-leaves (T), 103
 Bear (T), 24, 95, 166
 Bee (T), 29, 148, 157
 Beetle (T), 47
 Belgi, Belgic, 215
 Bellerophon, 39
 Bellovaci, 202
 Bel-Marduk, 205
 Berenice II, 242 f.
Berenikaia nomismata, 242
 Bermion, 20
 Besants, 265
 Biltu, 8
 Bimetallism, 60 f., 205
 Bird's-eye view on coin, 101
Birds of Aristophanes, 109, 112
 Bisaltai, 66
 Bitch (T), 27
 Bithynia, 237 f.
 — Roman province, 238
 Bi-valve (S), 135
 Black Sea, 179, 181, 238
 Blank for coin, 21 f.
 Boar (T), 26, 123, 152, 172
 — Calydonian (T), 255
 — Celtic (T), 202
 — Winged (T), 88, 149
 Boeotarchs, 158 f.
 Boeotia, Boeotian, 38, 54 ff., 84, 95,
 156, 158 f.
 Boeotia, Federal coinage, 158 f.
 Boeotian League, 54 ff., 156, 158
 Boscoreale, frescoes from, 223
 Bosphorus, kingdom of, 237
 Bottiaea, Bottiaean, 68 f.
 Botton, 68
Bouleuteria, 96
 Boutes, 50
 Brasidas, 115, 140, 150
 Britain, Britons, 196, 202, 215
 Britannia (T), 265
 Bronze, *see* Copper

Bruttians, Bruttium, 135, 251
 Bryges (Thracian), 70
 Brygoi (Illyrian), 70
 Bucephala, Bucephalus, 228
 Bucranium (S), 169
 Bull (T), 27, 47, 50, 52 f., 68, 78 f., 88,
 100, 114 f., 147, 157, 159, 170, 172,
 180, 190
 — man-headed (T), 79, 114, 122, 128,
 132 ff.
 — on corn-ear, 181
 Bull (T), on dolphin, 181
 — Zeus (T), 169 f.
 Bull-throwing, 160
 Byblus, 183 f.
 — Alexander mint, 210
 Byrsa, *Byrsat*, 250
 Byzantine Empire, 13
 Byzantium, 157, 181, 237 f., 265

C

Cable-border, 76, 79
 Caduceus (T), 145
 Calabria, 119
 Calauria, 36, 38 ff., 43, 56
 Calchedon, 181
 Calf's head, (S) 65, (T) 100 f.
 Callisto, 95, 166
 Calymna, 78
 Camarina, 130, 137, 189
 Cambyeses, 62 f.
 Camels, 3, 68
 Camirus, 41, 82, 149 f.
 Camp money, 177, 186
 Campania, Campanians, 115, 122, 186
 Canada, 160
 Candaules, 14, 19
 Canting, blazon, 84, 100, 114, 174, 181
 Cappadocia, 13, 184, 262
 Capua, 250
 Car with hydria, 162
 Cardia, 29, 86
 Caria, Carian, 14, 150, 185, 208
 Carmania, 213
 Carpathus, 41
 Carrhae, 228
 Carthaea, 40
 Carthage, Carthaginian, 79, 101 ff., 124,
 126 f., 128, 130, 135 ff., 156, 186 f.,
 190 ff., 245 ff., 260
 Carystus, 54, 57, 69, 84, 162
 Caspian Sea, 211
 Cassander, 218 f., 222, 240, 255, 257
 Cat, 119
 Catana, Catanian, Catanaean, 122,
 126, 131 f., 134, 150, 188, 266
 Cattle, as units of value, 1, 4 ff., 84
 Caulonia, 77 ff., 79

- Caunus, 41
 Caviare, 181
 Cecrops (T), 113
 Celery, 72
 Celts, Celtic, 196 f., 219, 223
 Celtic imitations, 201 f.
 Centaur (T), 30
 — and nymph (T), 66
 Central Asia, 234
 Ceos, 40
 Cephaloedum, 136
 Chabrias, 185
 Chaeronea, battles of, 202 f., 263, 265
 Chalcidian League, 150, 198 ff.
 Chalcidice, 66 ff., 84, 95, 140, 152, 179
 Chalcis, Chalcidian, 54, 56 f., 71, 73, 83 f., 86, 96, 105, 222
 Chandragupta, 227, 234
 Charias, 258
 Chariot (T), 73 ff., 102 f., 124 ff., 128 f., 131, 134 ff., 183 f., 186, 192, 201 f., 245, 248, 250
 — facing (T), 85 f.
 Charopinos, 159
 Chaucer, 234
 Chersonese, Thracian, 29, 85 ff., 105
 Chersonesus (Crete), 169
 Chimaera (T), 30, 123, 163
 Chinese Tartary, 234
 Chios, Chian, 30 ff., 41, 88, 95, 112 f., 146 f., 150, 152
 Chremonidean War, 259
 Cicero, 239
 Cilicia, Cilician, 7, 184 f., 205, 208
 Cimmerians, 15, 17, 19, 25
Cista mystica (T), 239
Cistophori, 239
 Citium, 153 f., 181, 185
 — Alexander mint, 209, 211
 Cius, 237
 Clay tablet (Cretan), 7, 10
 Clazomenae, 88, 171, 182, 186
 Cleisthenes, Cleisthenic, 17, 50 ff., 57 f., 85, 87, 105
 Cleitor, 165
 Cleomenes I of Sparta, 53
 — III of Sparta, 256
 Cleon, 110
 Cleonymus of Sparta, 196
 Cleopatra III (Egypt), 244
 — VII (Egypt), 244 f.
 — portraits of, 244 f.
 — daughter of Antiochus III (Syria), 243
 — Thea (Syria), 233
 Cleophon, 110
 Club and bow (T), 200
 Cnidus, Cnidian, 41, 146, 148, 150, 152, 157
 Cnidus, battle of, 157, 181
 Cnossus, Cnossian, 7, 10, 12, 13, 69, 169, 171, 261
 Cock (T), 27, 30, 71, 84, 88, 105
 Cockle-shell (S), 119
Coiffures at Syracuse, 125
 Coinage and autonomy, 21
 Coining, methods of, 18, 21 ff., 26, 38, 76, 87, 107
 Coins overstruck, 23 f.
 Colonies, Athenian, 114 f.
 — Corinthian, 117 f.
 — Ionian, 29, 64, 79 ff.
 Colophon, Colophonian, 14, 26, 61 f.
 Colossus of Rhodes, 253
 Comias, archon, 49
 Commagene, 209
 Commemorative coins, 94, 104
 Confederacies, monetary, 121. *See also* Leagues
 Canon, 157, 181
 Constantine the Great, 266
 Constantinople, 201, 237
 Control-marks, 118
 Copper of Achaean League, 255 f.
 — Antiochus IV, 231
 — Athens, 138, 177, 260
 — Cleopatra VII, 245
 — India, 235
 — Olbia, 180
 — Parthia, 236
 — Rhodes, 254
 — Sicily, 128, 131, 194
 — Syracuse, 193
 — Syria and Egypt, 231, 244
 — Thessaly, 161 f.
 — square shape, 235
 Corcyra, Corcyrean, 70 f., 95, 118, 124
 Coresia, 40
 Corinth, Corinthian, 39 ff., 45, 53 f., 57, 67, 70 f., 76, 82, 95, 113, 117 f., 123 f., 191 f., 201, 215, 245
 Corinth, Congress of, 204, 225
 Corinthian war, 163
 Corn-ear (T), 120, 180
 Corn-grains (T), 56, 103
 Corn-trade, 87
 Cornwall, 202
 Coronea, 55 f.
 — battle of, 156
 Corsica, 79 f.
 Cos, 110, 146, 148 ff., 152
 — battle of, 224
 Cote d'Azur, 80
 Countermarks, 107
 Cow (T), 70, 83 f., 105
 — and calf (T), 69 f., 118
 — unit, *see* Cattle
 Cow-boys, 160
 Crab (T), 41, 76, 105, 129, 135 f., 148 f., 194

Crannon, 161
 Crayfish (S), 119
 Credit systems, 179
 Crenides, 200
 Crescent-moon (S), 158, (T), 174
 Crete, Cretan, 2 ff., 7, 10, 13 f., 68 f., 89,
 95, 127, 165, 169 ff., 261
 Crimissus, battle of, 192 f.
 Croesus, 15 f., 60 ff., 64
 Crook and flail, 184
 Croton, Crotoniate, 77 f., 99, 114, 120 f.,
 126, 158, 188
 Crow, 67, 121, 140
 Crown, golden, 102 f.
 Crysapha, stelae from, 119
 Cult statues, 107
 Cumae (Italy), 77, 79, 122 ff.
 — battle of, 123 f.
 Cuttlefish, 40, 74 f., 84, 125, 188. *See*
also Octopus, Sepia
 — shell of, 84
 Cyclades, Cycladic, 14, 69, 89, 174
 Cydon, hero, 171
 Cydonia, 169, 171, 261
 Cyme (Aeolis), 14
 Cynoscephalae, battle of, 225
 Cyprus, Cypriot, Cyprian, 4 f., 7 f., 22,
 39, 63 f., 123, 152 ff., 185, 201, 209 f.,
 221, 224, 243, 249
 Cypselus, Cypselid, 39
 Cyrenaica, 82, 182, 249
 Cyrene, Cyrenaic, 44 f., 80, 82, 95, 113,
 179, 182 f., 242 f.
 Cyrus the Great, 62 f.
 Cyzicene electrum, value of, 112
 Cyzicus, Cyzicene, 27, 44, 48, 112 f.,
 118, 142, 157, 181

D

Damascus, 207
 — Alexander mint, 209
 Damastium, Damastian, 70
 Damokleidas, 159
 Dancing-girl (T), 144
 Daniel, Book of, 228, 231
 Danube, Danubian, 197, 219, 227
 Daphnae (Egypt), 80
 Daphne (Syria), 231
 Daric, Dareikos, 7, 63, 112, 139, 181 f.,
 185, 208
 Darius I, 62 f., 83
 — III, 208 ff.
 Dascylium, 184, 208
 Datames, 184 f.
 Date-palm (T), 136, 186 f., 246
 Datis, 91
 Daulis, 159
 Debasement of currency, 138, 188

Decadrachms, 75, 93 f., 102 ff., 127 f.,
 136, 159, 186 ff., 197, 213, 242 f., 248
 Declelea, 137
 Decrees prohibiting silver coin, 111 f.,
 141 f.
 Defenneh, 80
 Deinomenid dynasty, 248
 Delos, Delian, 4, 89 ff., 113, 224, 254,
 261
 Delian Confederacy, 141, 147
 — Fund transferred, 111
 Delphi, Delphic, Delphian, 16, 25, 40,
 51 f., 62, 98, 101, 103, 106, 113, 172,
 202 f., 254 f.
 Delphic Charioteer, 126
 — Oracles, 19
 Delta, 82
 Demanhur, 207
 Demarete, 102 ff.
 Demareteion, 102 ff., 124, 126 f., 132 f.,
 248
 Demeter, 97
 — (T), 120, 165 f., 181
 — of Anthela (T), 203
 Demetrius, 222
 Demetrius Comicus, 258
 — I of Bactria and India, 234 f., 266
 — I of Macedon, 219, 221 f., 228, 238,
 251 ff., 257 ff.
 — II of Macedon, 224
 — I of Syria, 231 f.
 — II of Syria, 232 f.
 Democritus of Abdera, 143
 Demodice of Cyme, 14
 Demonetisation of copper, 178
 Demosthenes, 127
 Demostratus, 264
 Demoteles of Samos, 31
 Denarii, Roman, begin, 251
 — — of Asia Minor, 254
 Derrones, 104
 Despoina, 97
 Device, Devices, obsolete terms; *see*
 second Preface
 Dicaea (Macedon), 66 f., 69, 84
 — (Thrace), 65
 Dies, 21 ff., 178
 — Alexander coinage, 207 ff.
 — anvil and punch, *see* Coining
 — Corinthian, sent to Syracuse, 192
 — hinged or connected, 76
 — sequence of, 21 f.
 Dikasts, *see* Jurymen
 Dikte, Mount, 172
 Diktyнна (T), 172
 Diocletian, 266
 Diodorus, 102 f.
 Diodotus of Bactria, 234
 Diomedes, 4, 168
 Dion, 190 f.

- Dicynsia, 260
 Dionysius, Athenian magistrate, 264
 — of Heraclea Pontica, 181
 — I of Syracuse, 128, 186 ff., 193 f., 245
 — II of Syracuse, 188 ff., 192
 Dionysus, 67, 120, 156, 173, 226 f., 243
 — head (T), 59, 71, 133, 145, 181
 — on ass (T), 140
 — on panther (T), 173
 — Theban, 58, 95
 Dioscuri (T), 196, 232, 235 f., 251
 — caps of (T), 256
 Discus, athlete with (T), 149
 Disk, winged (T), 153
 Dog (S), 121, 140
 — or hound (T), 130, 170
 Dole, Athenian, 93 f., 179
 Dolonci, 85
 Dolphin (T), 79, 90, 100, 119, 134 f.
 — rider (T) *see* Phalanthus
 Dolphin-shaped coins, 180
 Dolphins (T), 38 f., 40, 74, 98, 102, 168, 174
 Dorian, Dorians, 13 f., 33, 82, 169
 Dorian invasion, 12
 Double-axe (S), 89, 161
 Dove (T), 95, 162 f.
 Drachma (Attic), 7
 Draco, 4
 Drax, drachme, 35
 Drugs, 182
 Duck (S), 121
 Dumps (or pellets) of gold and electrum, 17, 29, 31, 72
 — of silver, 72 f.
 Dungi, 8
 Dyme, 255
 Dynasts, Lycian, 152
 Dyrrhachium, 70
- E
- Eagle (T), 27, 40, 54, 76, 83, 88, 96, 105, 106 f., 135 f., 161, 163 f., 168, 171 f., 181 f., 226, 240 f., 243, 247
 — on pine-tree (S), 132
 — sea- (T), 180 f.
 Eagle's head (T), 149, 164
 Eagles, two (T), 135 f.
 Ecbatana, 211, 230
Ecclesiastusae of Aristophanes, 178
 Edones, Edonian, 66, 104, 139
 Egypt Egyptian 1 ff., 7 ff., 12, 13, 16, 20, 63 f., 72 f., 77, 80, 82, 110, 155, 183 ff., 185, 194, 207, 210, 218 f., 230 f., 238, Ch. XIV, 248 f., 260, 264
 Elea, *see* Velia
 Eleatic philosophers, 80
 Electrum, emergency issue in Thebes, 157
 — in Athenian Empire, 112 f., 146
 — of Carthage, 250
 — of Dionysius I, 187 f.
 — source of, 17, 20
 Elephant (S), 247
 — (T), 213, 227 ff., 230, 236, 250, 262
 Elephant-scalp, 218 f., 234, 246
 Elephants, fighting, 213
 Eleuthernae, 169, 171
 Elis, Elean, 75, 96 f., 164, 190, 256
 Elymi, 72
 Empedocles, 78, 129
 Engravers, Aetna, master, 132 ff., 266
 — Aristoxenos, 120
 — Choirion, 134
 — Da... , 164, 266
 — Euainetos, 126 ff., 131, 134, 136, 159, 165, 172, 186 ff., 197, 266
 — Euarchidas, 126
 — Eukleidas, 126, 186, 188
 — Eumenes, 126
 — Eumenos, 126
 — Euth... (Olympia), 107
 — Euthymos?, 126, 130
 — Heracleidas, 131, 134, 266
 — Histor, 115
 — Im..., 188, 190
 — Kimon, 126 ff., 134, 136, 146, 160, 185, 188, 248, 266
 — Kratesippos, 187
 — L..., 164
 — Molossos, 115
 — Neuantos, 171
 — Phrygillos, 126
 — Pisano (Antonio), or Pisanello, 266
 — Polykaon, 164
 — Prokles, 134
 — Py..., 187
 — Pythodoros, 171 f.
 — Sosion, 125
 — Theodotus, 171, 182
 — in Crete, 169, 171
 — in Mende, 140
 — in Olynthus, 199
 — popularity of, 125
 — travelling, 171
 Enna, 194
 Epaminondas, 158 f., 162, 166, 255
 Ephesus, Ephesian, 15 ff., 29, 31, 41 f., 64, 146, 148, 152, 157, 227, 239, 242 f., 253
 Epidamnus, 70
 Epidauros, 36
 Epirus, Epirote, 195, 246 f., 255
 Eponymous, officials, 65, 143
 Era, Seleucid, 227, 232
 Erchomenos, *see* Orchomenos
 Erechtheus, 49

Eretria, Eretrian, 50, 54, 57, 67, 83 f.,
 91, 105, 111, 266
 Eriba-Marduk, 8
 Erichthonius (T), 113
 — and Lycus, 14
 Eros, Eroses, 71, 179
 Eryx, 136, 194
 Eteobutadae, 50, 52 f.
 Etruria, Etruscan, 64, 71, 80, 123 ff.,
 179, 249 f.
 Euagon, 144
 Euagoras I, 154, 157
 Euanthes, 154
 Euboea, Euboean, 7, 18, 41, 54, 56, 67,
 83 f., 95, 111. *See also* Standards
 Eucratides of Bactria, 105, 235
 Euclithon, 63 f.
 Eumenes I, 238
 Euphrates, 211
 Eupolis, 113
 Euripus, 57
 Europa (T), 169 f.
 — and Zeus, amours of, 170
 Europe, mediaeval, 265 f.
 Eurycleidas of Cephissia, 260
 Euthydemus of Bactria, 234
 Euxine, 87, 179, 237 f.
 Exainetos, 136
 Eye (T), 140
 Ezekiel, 155

F

Falcon (T), 108
 Female head (T), 89
 Fig-leaf (T), 41, 149
 Finds, *see* Hoards
 Fish (S), 121, 135
 — (T), 30
 Fish-spear (T), 174
 Fish-tailed god (T), 172, 184
 Flamininus, 225
 Flavian emperors, 29
 Flower (T), 174
 "Foals" (T), 39, 117
 Forgeries, ancient, 108
 Fortifications (T), 184
 "Four Hundred," at Athens, 147
 Frog (T), 40
 Frogs of Aristophanes, 110, 138

G

Gad-fly, 170
 Galatia, Galatians, 215
 Galley, 222
 — (T), 184
 — Samian (T), 100, 147

— stern of (T), 140
 Game-cock (T) ?, 229
 Games, Acheloois, 120
 — Assinarian, 127
 — Isthmian, 224
 — *See also* Olympia
 Gamoroi, 73
 Gandhara, 236
 Ganesa, 240
 Garrisons, Macedonian, 255, 259 f.
 Gaugamela, battle of, 210
 Gaul, Gauls, Gaulish, Gallic, 64, 79,
 127, 196, 201 f., 215, 222 f., 229,
 254 f.
 Gaza, 154 f.
 Gazelle (T), 183
 Ge (T), 113
 Gebal, 184
 Gedrosia, 213
 Gela, Gelon, 73, 75, 100, 113, 122,
 128, 130, 132, 137, 189
 Gelas (T), 128
 Gelon I of Syracuse, 73, 79, 101 ff., 124,
 127, 248
 — II, 248
 Gem engravers, 79, 126
 — — Dexamenos, 144
 Gibraltar, Straits of, 249
 Gilgamesh, 205
 Glaucus and Diomedes, 4
 Glaukos, 172
 Goat (T), 27, 90, 139, 145
 — mountain (T), 172
 Goddess (Aphrodite?) (T), 153
 — head of (T), 159
 Gold and silver ratio, 61, 123
 — early use of, 2
 — emergency issues, 123, 128, 137,
 142, 167
 — of Aetolia, 254
 — of Agathocles, 246
 — of Alexander, 204 ff
 — of Antigonus II, 224
 — of Antiochus IV, 231
 — of Asia Minor, 181 f.
 — of Athens, 148, 178, 258, 263
 — of Carthage, 249
 — of Cumae, 123
 — of Cyrene, 183
 — of Demetrius I, 222
 — of Eucratides, twenty-stater coin,
 235
 — of Flamininus, 225
 — of Hicetas, 246
 — of Lysimachus, 221
 — of Mithradates VI, 237 f., 263
 — of Olynthus, 199
 — of Panticapaeum, 180
 — of Philip II, 200 ff.
 — of Pisa (Olympia), 167

— of Pyrrhus, 247
 — of Rhodes, 253 f.
 — of Sicily, 136 f.
 — of Syracuse, 128
 — of Taos in Egypt, 185, 194
 — of Tarentum, 194 ff., 247, 250
 — of Tauromenium, 188
 — of Thasians, 200
 — of Thrace, 142
 — of Timoleon, 193
 — Ptolemaic, 241 ff.
 — supersedes electrum, 61
 — *See also* Electrum
 Gold standard, temporary, 137
 Golden Nikes, melted, 138
 — — restoration of, 178, 204
 Goldsmiths and silversmiths, 72
 Gorgias, 263
 Gorgon (T), 123
 Gorgoneion (T), 27, 50, 52 f., 107, 174
 Gorgos, 154
 Gortyna, Gortynian, 169 f., 261
 Graeco-Scythian art, 179 f.
 Granicus, battle of, 208
 Grapes (T), 40, 71, 90
 Gras, 154
 Great King, 62 f., 89, 95, 108
 — (T), 62, 185
 Griffin, 180
 — (T), 30, 64, 142, 263
 — lion-headed (T), 180, 210
 Gyges, 15, 17, 19, 24 f.

H

Hadrian, Hadrianic, 87, 107
 Hagia Triada, 7
 Haliartus, 55 f., 158
 Halicarnassus, 186
 Halys, 14
 Hammurabi, Code of, 11
 Hannibal, 249 ff.
 Harbour (T), 79, 100
 Hare (T), 101, 134 f.
 Harmodios and Aristogeiton (T), 113
 Harpagus, 153
 Hasdrubal, 102
 Hattushil, 13
 Hawk (T), 184
 — harrier- (T), 153
 Hebrew, 155
 Hecataeus of Abdera, 143
 Hecate head (T), 161
 Heliasts, *see* Jurymen
 Helios (T), 136, 150, 181, 253
 — mistaken for Christ's head, 253
 — priest of, 143
 Hellanokrates of Larisa, 161
 Helle on ram (T), 181

Hellespont, 85, 181, 229
 Helmet (T), 123, 130, 140
 Helvetii, 201
 Hemitetartemorion, 179
 Hen (T), 105
 Hephaistos, 170
 Hera, 95 f., 166
 — (T), 96, 118, 120
 — Argive, 34 f., 37, 42, 143, 168 f.
 — Cnossian, 169, 171
 — head (T), 158, 163 f., 168 f., 171, 181, 195 f., 251
 Hera-mint (Olympia), 107, 163 f., 168
 Heraclea (Ionia), 261
 — (Italy), 115, 117 f.
 — (Pontic), 181
 — battle of, 247
 Heracleidas (Athenian), 110
 — of Pontus, 34, 42 f.
 Heracles, 129
 — (T), 120 f., 131, 156, 170, 185, 218 f., 226 f., 236, 250 f., 254 ff.
 — ancestor of Macedonian kings, 205
 — and bull (T), 129
 Heracles and Iphicles (T), 157
 — and lion (T), 128
 — and tripod (T), 156
 — and trophy (T), 181
 — bowman (T), 156
 — crowning himself, 234
 — head (T), 65, 149, 166, 181, 198, 200, 205, 208
 — infant, and serpents, 156 ff., 181
 — in garden of Hesperides (T), 183
 — *oikistes* (T), 121
 — seated (T), 229, 234
 — shooting (T), 145, 147
 — striding (T), 166
 Heraea, 55, 95, 97 f., 107
 Heraeum, Argive, 35, 168 f.
 Herm on throne (S), 145
 Hermes (T), 165 f., 170, 173, 266
 — from Herculaneum, 166
 — head (T), 145 f., 181
 Hermione, 36
 Hermus, 20
 Herodotus of Abdera, 143
 — of Halicarnassus, 9 f., 14, 19 f., 61, 66, 68, 86 f., 93 f., 99, 108, 149, 152
 Hesiod, 163
 Hesychius, 170
 Hexadrachm, 65 f., 139
 Hicetas, 246
 Hidrieus, 186
 Hierapytna, 169, 171, 261
 Hieron I of Syracuse, 114, 123 f., 131 f., 248
 — II, 105, 247 ff.
 Hieronymus, 249
 Himera, Himerean, 71 f., 105, 129

Himera, battle of, 101 f., 105
 — nymph (T), 129
 Himeros, 71
 Himyarites, 262
hing, 182
 Hipparchus, 86
 Hipparris, river-god, 131
 Hippeis, 73
 Hippias, 51 f., 57, 84, 86
 Hippobotai, 73
 Hippocamp, *see* Sea-horse
 Hippocleides, 49
 Hippocrates, 100
 Histiaeus, 87
 Hittite, Hittites, 4 f., 13 f., 19
 Hoards, 38 f., 62, 67, 71 f., 80, 83, 97,
 100, 110, 201, 206 f., 215
 Homer, Homeric, 4, 6, 12, 33, 38
 Homeric Catalogue, 13
 Homeric Hymns, 66
 Homonoia (T), 120
 Horned portraits, 214, 219, 221 ff.,
 228, 240, 242
 Horse (T), 88, 89, 136, 139, 144, 158,
 160 f., 186 f., 193 f., 236, 246, 249 f.
 — forepart of (T), 27, 47
 — hinqarters of (T), 47
 — horned (T), 227 f.
 — introduction of, 3
 — winged (T), 88, 157, 181
 Horseman (T), 74 ff., 85 f., 88 f., 119,
 125, 139, 160 ff., 183, 199 f., 219, 222
 Horsemen of Tarentum, 119, 194 f.
 Hubs, use of, 22
 Hunter, Kremissos as, 130
 Hydra of Lerna, 163
 Hydria on car (T), 162
 Hyele, *see* Velia
 Hygieia (T), 120
 Hykos, 3, 12
 Hypata, 261
 Hypas, river-god (T), 129
 Hyria, 115, 122, 126

I

Ialysus, 41, 149 f.
 Iasus, 157
 Iberia, 160. *See also* Spain
 Ibex (T), 27. *See also* Goat
 Ictinus, 116
 Idaliun, 153 f.
Iliad, 4 f., 12, 66
 Illyria, Illyrian, 70, 225
 India, 24, 110, 182, 212 f., 227 ff.,
 233 ff., 265
 Indus, 1, 197, 211, 213, 227, 236,
 Ingots, 5 ff., 12, 18
 Inscriptions cited, 21, 98, 111 f., 113

— remarkable, *Acheloio*, *Aethlon*, 120
 — *Alexandreion Ptolemaiou*, 240
 — *Alexandrou tou Neoptoleμου*, 195
 — *Am Machanat*, 186
 — *Arethosa*, 126
 — *Basileos Antiochou Theou Epi-
 phanous Nikephorou*, 231
 — *Basileos Tryphonos Autokratoros*,
 232
 — *Dioskoroi*, 196
 — *Epami...*, 159
 — *Epi Apollonos*, 143
 — *Epi Kallianaktos*, 143
 — *Geta basileos Edonan*, 66
 — *Gortynos to paima*, 169
 — "I am the badge of Phanes," 28
 — "I am the badge of Thersis; do
 not open me," 28
 — *King of Kings*, *Arsaces*, the
Benefactor, the *Just*, god manifest,
Philhellene, 236
 — *Machanat*, 137
 — *Maharajah Demetrius*, the *Un-
 conquered*, 235
 — *Mechasbim*, 186
 — *Neuantos epoei*, 171
 — *Olympikon*, 106
 — *Olynthi*, 198
 — *Pa-si-le-wo-se E-u-we-le-to-ne*, 64
 — *Pa-si-le-so-se Ma-ri-e-u-se Sa-ta-
 si-wo-i-ko-se*, 154
 — *Pelops*, 129
 — *Phaistion to paima*, 170
 — *Qart Chadast*, 137, 186
 — *Segestazibemi*, etc., 130
 — *Sikeliotan*, 248
 — *Sosipolis*, 128
 — *Soter*, 129
 — *Syn(machikon)*, 157
 — *Themistokleios*, 108
 — *Theodotos epoei*, 182
 — *Waleion Olympia*, 168
 — *Walwash*, 26
 — *Welchanos*, 170
 — *YHW*, 154
 — *Ziz*, 187
 Invention of coinage, 14 f., 20
 Iokastos (T), 121
 Iolcus, 89
 Ionia, Ionian, Ionic, 8, 13 ff., 17, 20,
 24, 26 ff., 33, 37, 40, 60, 63 ff., 72,
 79 ff., 83, 88 f., 150, 153, 182, 241 f.,
 261
 Ionia and Lydia, relations between,
 16 f., 64
 Ionian revolt, 83, 86 ff., 93, 99
 Iphicles, 157
 Ipsus, battle of, 221, 227, 258
 Iranian, *see* Persian
 Iron age, beginning of, 13

Iron currency, 33 ff., 37
 Isagoras, 52 f., 57, 84, 86
 Iskander Dhulcarnein, 214
 Iskanderun, 209
 Islam, 214
 Islands, 89 f.
 Ismenias, 159
 Isocrates, 205
 Israel, 154
 Issus, 185
 — battle of, 209 f.
 Isthmia, 224
 Istrus, 238
 Italy, Italian, Italiote, 4, 40, 43, 64,
 76 ff., 80, 95, 100 f., 113 ff., 117 ff.,
 127, 179, 187, 189, 191, 194 ff., 201,
 247, 250 f., 265 f.
 Itanus, 172
 Ithome, 135
 Iulis, 40

J

Jason, hero, 89
 — of Pherae, 161
 Jerusalem, 155, 228, 231
 Jhelum, 212 f.
 Jockey (T), 119
 Judas pennies, 253
 Julius Caesar, 203, 245, 264
 Jupiter, 230
 Juryman's pay, 58, 109 f.
 Jurymen, 109 f.
 Justinian, 266

K

Kabul, 63, 212, 236
 Kalathos (S) and (T), 258, 260
 Kantharos (T), 90
 Kassites, 3
 Kent, 202
 Kephisodotos, 126
 Kerameikos, 179
 Kertch, 180
 Key (T), 169
 Khārāi, 153
 Khārīgā, 153
 Khyber Pass, 212
 Klearchos, decree of, 112, 141, 148, 150
 Knights of Aristophanes, 58, 110
 Korai, Athenian, 59
 Kore head (T), 246 f., 249
 Kossikas, 152
 Kremissos, river god, 130
 Kuban, 180
 Kubernis, 152
 Kul Oba, 180
 Kylix (S), 65
 Kyllene, 166

L

La République, 104
 Labyrinth (T), 171
 Lacedaemon, Lacedaemonian, *see*
 Sparta
 Lachares, 258 f., 261
 Laconia, Laconian, *see* Sparta
 Laconian ware, 97, 182
Lacunaria, 98
 Lagus, 240 f.
 Lampsacus, 88, 112 f., 157, 181 f., 208
 Land-tortoise (T), 162
 Lansdowne athlete, 173
 Laodice of Pontus, 237
 Lapethus, 153 f.
 Lappa, 261
 Larisa, 89, 98, 126, 160 f.
 Laurel-sprig (S), 138
 Laurian mines exhausted, 264
 Laurium, Laurian, 43, 50, 53, 56, 65,
 92 f., 98, 104, 108 f., 137, 176, 257,
 260, 263 f.
 Laus, 114
 League coinages, 88, 97, 157
 — Maritime (anti-Spartan), 157
 Leagues, 252, 254 ff.
 Lebedus, 261
 Leg (T), 52
 Lenaeon festival, 138
 Leonardo da Vinci, 77
 Leontini, 75, 103, 117, 128, 132, 189,
 192 f.
 Lesbos, 27, 113 f.
 Letaioi, 66
 Leucas, 22, 117
 Leuctra, battle of, 164
 Leukaspis (T), 128, 159, 168
 Leukippos (T), 120, 193
 Leukopodes, 46
 Libra, 72
 Lincoln, Abraham, 265
 Lindus, 149 f.
 Lion (S), 102 f., 124, 126
 — (T), 24 ff., 27 ff., 60, 80, 87, 148,
 153, 184, 196, 200, 211
 — and bull (T), 60
 — griffin (T), 210
 — Nemean (T), 163
 — on bull (S), 189
 — — (T), 68, 105, 141, 184
 — on stag (T), 153, 185
 — Syrian (T), 209
 Lioness? on bull (T), 68
 Lion's head (T), 52 f., 75, 123, 149, 157,
 161, 180
 Lion's scalp (T), 31, 100, 121, 147, 157,
 169, 180, 187
 — — and boar's heads (T), 122 f.
 Lions, 80

— in Europe, 68
 — rampant (T), 89
 Litra, litrae, 72 f., 192 f.
 Livy, 239
 Locri, Locrian (Italy), 117, 135
 Locris, 127, 168
 Locust (S), 65, 120
 Lotus (T), 153
 Louvre, 68
 Lucania, Lucanians, 117, 194
 Lucrinus, 122
 Lucullus, 233
 Lycaean Mount, 97
 Lycia, Lycian, 4, 152 f., 208
 Lycian hams, 152
 Lycian tombs, 152
 Lyciscus, 255
 Lycosura, 97
 Lycurgus (Spartan), 33
 — Athenian administrator, 257
 — the Eteobutad, 46
 Lydia, Lydian, 12, 14 ff., 17, 20, 24,
 37, 41, 49, 60 ff., 76, 87, 239, 265
 Lydian script, 26
 Lyre (T), 90, 143, 198
 Lysander, 162, 174
 Lysimachia, 223
 Lysimachus, 214, 219, 221 f., 238, 241,
 245, 265
Lysistrata of Aristophanes, 46
 Lysistratus, 109
 Lyttus, 172

M

Macedon, 70, 80, 83, 89, 139, 149 f.,
 222, 264
 Macedonian garb, 139
 Macedonian helmet (T), 232
 Macedonian kingdom, kings, 69, 139,
 161, 197 f.
 Macedonian Regions, 226
 Magas, 242
 Magistrates, annual, 142
 — Athenian, their system of control,
 262
 — badges of, 88, 118
 — monetary, under Alexander, 205 ff.
 — names, 64
 — responsibility of, 26
 Magna Graecia, 76 ff., 160
 Magnesia, 108, 234
 Maia, 166
 Male head (T), 27, 181, 196
 Malea, 33
 Mallus, 185
 Mamertines, 247
 Manah, 8
 Mantinea, 24, 95, 165

— battle of, 165
 Marathon, 51, 91 f.
 — coin-type abandoned, 261
 Marathus, 241
 Marcellus, 249
 Mardonius, 89
 Maria Theresa thalers, 116
 Marianne, 104
 Maritime League (anti-Spartan), 157
 Marium, 153 f.
 Marks of value on coins, 123
 Maroneia, 65, 111, 141 f., 144, 149 f.,
 152, 226
 Marseilles, 82
 Massalia, Massaliote, 79 f., 196 f., 201
 Mausoleum, The, 186
 Maussollos, 185
 Maximianus, 266
 Mazaeus, 184 f., 208 ff.
 "Medallions," 104
 Medes, *see* Persia
 Megacles, son of Alcmaeon, 46 f., 50 f.
 Megalopolis, 164 f., 200
 Megara, Megarian, 40, 49, 90
 Melas, of Ephesus, 29 f.
 Melicertes, 40
 Melos, Melian, 40, 174, 176
 Melos, revival of, 174, 176
 Melqart, 184, 205
 Memphis, 230
 Mende, Mendeian, 66 ff., 69, 140 f.,
 144 f., 150, 152, 266
 Mercenaries, Ch. xi
 — returning from West, 159 f., 165,
 173
 Mercenary captain (T), 185
 Mercenary coinages, 184 ff.
 Mermnad dynasty, 15, 19, 24 f.
 Mes-Kalam-Dug, 2
 Mesma, 117
 Mesopotamia, 1, 4, 8, 11, 16, 24, 83,
 210, 236
 Messana, 99, 134 f., 247
Messana, nymph (T), 134
 Messapia, Messapian, 194
 Messene (Pelop.), Messenian, 99 ff.,
 135, 164, 166, 256
 Messina, 100
 Metallic currency, 1
 Metapontum, 77 ff., 79, 99, 120, 122,
 193
 Metrologist (Alexandrine), 6 f.
 Metropolis = Babylon, 207, 211
 Midas, 20
 Miletus, Milesian, 8, 26 ff., 29 ff., 33
 41, 64, 82, 86 ff., 99, 143, 180
 Miletus, Alexander mint, 208
 Military issues, Eastern, 184 f.
 — — Western, 186 f.
 Miltiades I, son of Cypselus, 85 f., 105

— II, 86 f., 91
 Mina (Mna), 8, 41, 44 f.
 Mines, copper, 18
 — electrum from river sands, 20
 — gold, 20 f., 200
 — iron, 13, 33
 — Macedonian, 207, 224 f.
 — *See also* Laurium
 — silver, 40, 43, 50, 65 f., 86, 108, 115, 137, 139, 176, 224 f., 264
 Minoan, 2 f., 68 f., 72, 134, 170 f.
 Minoan survivals, 27, 170 f.
 Minos (T), 171
 Minotaur (T), 171
 Mint, *see* Coining
 Mint, "Travelling," 100
 Mint-apparatus, Athenian, in Parthenon, 178
 Mint-operatives, 107
 Mints of Alexander, 206 ff., 216, 217
 Minyans, 56
 Mistress, The, 97, 107
 Mitanni, Mitannian, 9
 Mithradates I of Parthia, 236
 — II of Parthia, 236
 — III of Pontus, 237
 — IV of Pontus, 237
 — VI of Pontus, 218, 237 f., 263
 — VI, imitates Alexander, 237 f.
 Mithradatic war, 254, 263
 Mnesarchus, 78
 Mochlos, 7
 Mollusc (S), 135
 Molpagores, 144
Molpe, 144
 Monometallism, 205
 Monsters as types, 123 f., 153
 Moon, full, 92
 — waning (S), 91 f.
 Motya, 126, 136
 Mule-car (T), 101, 121, 134 f.
 Mulletts (S), 129
 Museum Hill, 259
 Mussel-shell (T), 122
 Mycalessus, 56
 Mycenae, Mycenaean, 2, 5 ff., 7, 12, 13, 22, 33, 39, 41, 55, 69, 89
 Myonnesus, 253
 Myriandros, 209, 211
 — Alexander mint, 209
 Myrsilus, 14, 19
 Mysia, Mysian, 14, 239
 Mytilene, 30, 41, 112, 114
 Mytistratus, 194

N

Nabis, 257
 Nagidus, Nagidian, 184 f.

Napoleon, 203
 Naucratis, 82
 Nauplia, 36
 Naxos (Island), Naxian, 15, 71, 89 f., 176
 Naxos (Sicily), Naxian, 71, 127, 131 f., 134, 266
 Neapolis (Ital.), 113, 115, 118 f., 122, 126
 Neapolis, suburb of Syracuse, 189
 Negro, 183
 — head (T), 250
 Nemean lion (T), 163
 Neoptolemos, 195
 New Sybaris, 114 f.
 Nicocles of Sicyon, 255
 Nicomedes I, 238
 Nike, 74, 103
 — (S), 213 f.
 — (T), 96, 105, 106 f., 120 ff., 130, 132 ff., 163, 204, 218, 225, 251
 — erecting trophy (T), 181, 228, 246 f.
 — killing ram (T), 181
 — of Samothrace, 221, 253 f.
 — on prow, 221 f., 253 f.
 — statues of, *see* Golden Nikes
 Nike-balustrade, Athens, 122
 Nikias, 127, 140, 198
 — Peace of, 163
 Nikostratos, 144
 Nile, 1, 4
 Nimrud Dag, 209
 Nineveh, 8
 Nola, 115, 122
 Normandy, 202
 Nubia, Nubian, 9
 Nymph, 179
 — (T), 89, 123, 183
 — on swan (T), 131
 Nymph's head (T), 160 f., 181, 183, 185
 Nymphodoros, 142 f.
 Nymphs, 66

O

Oak wreath (T), 225 f.
 Obel, Obelos, 12, 34 ff., 256
 Obol, Obolos, 34 ff., 45
 Obverse and reverse, 22, 25
 Octadrachm, 65, 139, 184, 242 f., 248
 Octavius, *see* Augustus
 Octopus (T), 105 *See also* Cuttlefish
 Odysseus, 174
 Oekist (T), 121, 187
 Ogmios (T) (Celtic god), 202
 Olbia, 180
 Oligarchy (Athenian), 46, 48, 50, 52
 Olive, wild, 164
 Olive twig (S), 147

Olympia, Olympian, Olympic, 24, 38,
96 ff., 98, 101, 105, 106 f., 126, 135,
162 ff., 167 f., 190, 193, 200, 231, 266
Olympia, Athenians excluded from, 163
— battle of, 167
— nymph, head of (T), 168
— Zeus temple, 97, 106, 111, 145, 164
Olympiad, 28th, 34
— 90th, 163 f.
— 104th, 167
— 105th, 168
Olympias, Queen, 218, 240
Olympic art, 106 f., 145
Olympic festival, 96, 163
Olympic Games, 163 f., 167, 200
Olympic victories, 85 f., 101, 129, 136
Olympus, 181, 199
Olynthus, 66, 68 f., 150, 198 ff.
Omphalos and eagles (T), 113
Opus, Opuntian, 159 f.
Orchomenos, 36, 56, 158
— battle of, 263
Orion, 34
Orodes II, 236
Orontes, river-god, 233
Oropus, 54, 57
Orrheskioi, 66, 104, 139
Ortygia, 74
Osiris, 244
Owl (T), 28, 105, 113, 147, 184, and
Athens *passim*
Ox unit, *see* Cattle
Oxen (T), 66
Oxfordshire, 202
Oxus, 110, 228

P

Pactolus, 20
Paeonia, Paeonians, 65 f.
Palatinate, 201
Palestine, 8
Palladium, 168 f.
Pallene, 51
Palm-tree (T), 136, 171, 186 f., 246
Pamphylia, 153, 208
Pan, 135, 165, 181, 223, 260
Panathenaia, Greater, 49, 51, 59, 204,
214
Pandusia, 126, 196
Pangaeum, Pangaeian mount (Pan-
gaion) 20, 50, 86, 115, 200, 224
Panoply (S), 127
— (T), 130
Panormus, 187
Pantheistic deity (T), 237, 243
Panticapaeum, 29, 180 f.
Paphlagon, 110
Paphos, 153

— Alexander mint, 209
Paris, 202
Parnon, 33
Paros, Parian, 89 f., 176
Parthenon, 16 f., 115 f., 137, 145, 258
Parthenope (T), 122
Parthia, 229, 232 f., 236 f.
Pasargadae, 206, 211
Pasion, 179
Patrae, 167, 255
Patroclus, 5
Pausanias (Spartan regent), 98 f., 102
Pausanias the Traveller, 34, 172, 258
264
"Paymasters," 186
Pegasus (T), 27, 39 f., 54, 117, 190,
192 f., 237, 245 ff., 249, 256, 261, 263
Pelias, 89
Pelion, 89
Pella, 222, 225 f.
— Alexander mint, 202, 206 f., 212, 219
Peloponnesian, Peloponnesian, 14, 33,
36 ff., 45, 57, 95 ff., 99, 106 f., 111,
127, 131, 140, 162 ff., 173, 191, 201,
208, 255, 258 f.
Peloponnesian League, 156
Pelops, 129
Pentadrachms, 241 f.
Pentekontalitra, 75, 102 f.
Perdiccas II, 39
— III, 198
Pergamum, Pergamene, 227, 238 f., 260
Periander, 39
Pericles, Periclean, 16 f., 108 ff., 111,
114 f., 193, 258
Persae of Aeschylus, 106
Persephone (T), 120, 171
Persepolis, 206, 211, 228
Perseus, hero, 225 f., 237
— king of Macedon, 226, 230
Persia, Persian, 16, 24, 62 ff., 79, 86 f.,
98 f., 101, 106 ff., 139, 141, 148,
152 ff., 155, 164, 181 f., 185, 187,
204 ff., 228
"Persian archers" (T), 63
Persian art, 153
Persian dress, 63
Persian Empire, 83, 132, 206 ff.
Persian gold, 157, 187
Persian Gulf, 211
Persian imperial coinage, 62 ff.
Persian invasion, 66, 68
Persian king and lion (T), 184
Persian king in car, 184
Persian treasures, 211
Persian wars, ch. VI, 156
Peshawar, 63
Phaestus, Phaestian, 169 f.
Phalanthus (T), 79, 119, 247, 251
Pharae, 56

- Pharaoh, 184 f.
 Pharnabazus, 157, 184 f.
 Pharnaces I, 237
 Pharsalus, 160 f.
 Pheidon of Argos, 12, 14, 20, 34ff., 37ff., 42, 82
 Pheneus, 165 f., 169, 173
 Pherae, 161
Phiale mesomphalos (T), 98
 Philetaerus, 238 f.
 Philip II of Macedon, 38, 161, 193, 195, ch. XII, 219, 222, 254, 257, 264
 — III of Macedon, 218, 240
 — V of Macedon, 215, 224 ff., 261
 — VI of Macedon, 226
 Philippeioi, 201 f., 215, 245
 Philippi, 200
 Philistia, Philistine, 154 f., 249
 Philistis, 248
 Philocleon, 109
 Phlegon of Tralles, 258
 Phliads, 105
 Phocaea, Phocaeian, 20, 27, 30 f., 41, 64, 79 f., 112 ff.
 Phocis, Phocian, 51, 95, 159
 Phoenicia, Phoenician, 4, 8, 11, 14, 64, 72 f., 154, 172, 205, 210, 232
 Phoibos, *see* Apollo
 Phrygia, Phrygian, 14, 20, 89, 239
 Phrygian cap, 225
 Physcon, 244
 Pictorial coins, 170, 173
 Pindar, 74, 124, 131 f., 248
 Pindus, 70
 Piracy, 253
 Piraeus, 259 f., 263
 Pisa, 167 f.
 Pisisistratus, 28, 48 ff., 53, 65, 85, 71, 91, 180
 Pistrix, *see* Sea-serpent
 Pixodarus, 186
 Plataea, Plataean, 140, 158
 Plataea, battle of, 99, 102, 106
 Plato, 34
 Plautos, 215
 Plutarch, 33, 84, 93, 213, 245
 Pnytagoras of Salamis, 209
 Pollux, 14, 37, 39, 62, 242
 Polycrates, 78
 Polyrrenium, 172, 261
 Pomegranate (T), 153
 Pompeii, 223
 Pompey, 233, 264
 Pontus, Pontic kingdom, 237 f.
 Population, 93, 189, 191
 Portraits, early, 144, 181
 — on Bactrian coins, 234 f.
 Poros, 36
 Porus, 213
 Poseidon, 36, 38, 79, 114, 222, 224, 251
 — Hippios, 97
 — (T), 67, 173
 — of Onchestus, 158
 — Taureos, 222
 Poseidonia, 77 ff., 79, 114
 Posthumous issues, Alexander, 218
 — Philip, 219
 Potidaea, 66f., 69
 Potters, Pottery, 43, 55, 97, 115, 179, 182
 Potters, Attic in South Italy, 115
 — Kleophrades, 133
 — Sotades, 133
 Pottery, Laconian, 97, 182
 Praesus, 69, 172
 Priansus, 261
 Priene, 261
 Priestly administration of mints, 96 f.
 Prinkipo, 215
 Propontis, 87, 152
 Pro(tagoras?), 143
 Protesilaos (T), 140
 Prow (T), 100
 — Apollo on, 224
 — broken, 222
 Prusias, 238
 Psamtek I, 80
 Ptolemies, 105, 212, 230 f., ch. xiv, 247 f., 250, 264
 Ptolemy, I, 214, 219, 223, 240, 244, 246, 265
 — II, 223 f., 241 f., 247
 — III, 242 f.
 — IV, 243
 — V, 243
 — VI, 233, 243
 — VII, 232, 244
 — VIII, 244
 — XIII, 244
 Pump (S), 169
 Punch marks, 107
 Punch-die, owl, from Egypt, 110
 Punches, nail-, 17 f., 24, 29
 Punic, *see* Carthage
 Punic war, second, 249 ff.
 Punjab, 214, 228, 235 f.
Purana writings, 235
 Pydna, battle of, 226
 Pyrrhus, of Epirus, 246 f., 254
 Pythagoras (Philosopher), Pythagorean, 77 ff., 100, 119, 144
 Pythagoras, portrait of, 144
 — tyrant of Ephesus, 29
 Pythagorean theory of numbers, 78
 Pytheas of Massalia, 196
 Python of Abdera, 143 f.
 Pyxus, 77 ff.

Q

Quattrocento, 265
Quince (T), 40, 174

R

Race-torch (T), 115
Rain-charm, 162
Ram (T), 26, 64
Ram's head (T), 174
Ram's heads (T), 98
Ram-god, 183
Ramses II, 13
Ran of Cutch, 213
Rawal-Pindi, 110
Renaissance, Italian, 234
Resh Melqart, 187
Rhaecelus, 50
Rhaucus, 173
Rhegium, Rhegine, 77 ff., 99 ff., 117, 121, 134, 187 f., 192 f.
Rhegium, fall of, 187
Rhine, 197
Rhode, 197
Rhodes, Rhodian, 41, 82, 143, 146, 149 f., 152, 157, 186, 205, 221, 252 ff., 260
Rhodes, synoecism of, 149
Rhone, 201, 215
Rhoontopates, 186
Ring money, 4
River-bull (T), 75 f.
River-god, head of (T), 128, 131, 134
Roma, 265
Rome, Roman, 4, 119, 196, 230, 238 f., 247, 249 ff., 253 f., 257, 261, 264 ff.
Roman booty, 215, 239
Roman Circus, 160
Roman Empire, 13, 264, 266
Roman occupation of Egypt, 241, 245
Roman Republic, 69, 206, 224 ff., 249
Rose (T), 150, 157, 197, 253 f.
Rosette (T), 20, 69
Roxane, 218
Royal seal as blazon, 18, 24 f.
"Ruler of Sicily," title, 190
Russia, 179, 201

S

Sadyattes, 16, 25
Sailor's cap, head in (T), 174
Sakas, 235 f.
Salamis (Attica), 49, 101, 260
— — battle of, 84, 92, 94, 106, 204
Salamis (Cyprus), Salaminian, 5, 12, 63 f., 153 f., 157, 221
— — Alexander mint, 209

— — battle of, 219, 221, 253
Salonika, 215
Samaina (T), 100
Samnites, 122
Samos, Samian, 30 ff., 40 f., 45, 77, 82, 99 f., 121, 146 ff., 150, 152, 157
Samos, metreological relief from, 147
Samothrace, Cabeiron at, 253
— Nike of, 253 f.
Sandal (T), 89
Sarapis and Isis, 242
"Sardanapalus" (T), 121
Sardinia, 7
Sardis, Sardian, 19 f., 23 f., 27, 29, 61 f., 64, 184, 239
Sardis, Alexander mint, 208
Saronic Gulf, 38, 60
Sassanians, 237
Satrap, satrapy, satrapal, 62 f., 153, 157, 177, 184 f., 208 ff., 222
Satraps' revolt, 184 f.
Satyr and Maenad, 145
— and nymph (T), 66, 144
Satyr's head (T), 180
Scallop-shell (T), 100
Scarabaeus beetle (S), 132
Scione, 66, 140 f., 150
Sciron, 38
Sculptors, Bryaxis, 231
— Chares, 252
— Dipoinos and Skyllis, 173
— Endoios, 16
— Eutychides, 233
— Hagelaidas, 166
— Kephisodotos, 126
— Lysippus, Lysippean, 165 f., 173, 233
— Myron, 177
— Olympia Master, 177
— Pheidias, Pheidian, 116, 118, 204, 231, 258, 261
— Polycleitus, Polycleitan, 168
— Praxiteles, 165 f., 177
— Pythokritos, 253
— Scopas, Scopaic, 165, 177
— Timocharis, 253
Sculpture, 107, 145
Scylla (S), 126, 135, 160
Scythes, 100
Scythia, Scythian, Scyth, 179 f.
Sea-horse (or hippocamp) (T), 119, 123, 173, 184
Sea-serpent (or pistris) (S), 124 ff., 132, 172
Seal (T), 30, 114
Seal-stone of Thersis, 28
Securities and interest, 11
Segesta, Segestan, 72, 130, 136
Segesta, nymph (T), 130
Seilen, Seilenos, 140
Seilen, drinking (T), 133

- head (T), 132 f.
- vaulting over bull (T), 134
- washing himself, 129
- Seleucia ad Tigris, 227 ff., 232
- Seleucus, House of, 227
- I, 219, 223, 227, 234, 238
- II, 229, 242
- III, 229
- IV, 230 f.
- Selinon leaf (T), 72, 130
- Selinus, Selinuntine, 72 f., 129 f.
- Selinus, river-god (T), 129
- Sentimental coin-type, 195
- Sepia (T), 193
- Seriphos, 40, 92
- Sermyle, 66 f.
- Serpent (S), 121
- Sequani, 215
- Shekel, 8, 19
- Shell (T), 193
- Shield, Boeotian (T), 55 ff., 156, 158 f.
- circular (T), 45, 85, 130
- Gaulish, 255
- Macedonian, 223, 225 f., 255
- Sicyonian, 163
- Ship (T), 184
- Sicels, 72, 186
- Sicily, Sicilian, Siceliote, 40, 63, 71 ff., 94 f., 99 ff., 104, 110, 117 f., 122 ff., 156, 159, 164, 173 f., 177, 179, 186 ff., 201, 245 ff.
- Sicyon, Sicyonian, 38, 95, 162 f., 165 f., 255 f.
- Sicyon, Alexander mint, 208
- Side, 153, 208, 211, 253
- Sidon, 183 f., 207
- Alexander mint, 210
- Siglos, Sigloi, 19, 63, 86
- Signatures, *see* Engravers
- Silenus, *see* Seilen
- Silerae, 194
- Silphium, 82, 182 f.
- (T), 82
- Simonides, 90
- Simos (Aleuad), 161
- Sinope, 181
- Siphnos, 40, 111
- Sipylus, 20
- Siris, Sirinian, 77, 79
- Siwah, 183
- Small change in mouth, 109
- Smyrna, 111, 239
- Solar topee, 234 f.
- Solar wheel (T), 202
- Soldier charging (T), 144
- Soli, 185
- Solokha, 180
- Solon, reforms of, 44 ff., 48, 264
- Sophytes, 228 f.
- Sosipolis (T), 128
- Soteira (T), 120
- Sow (T), 88
- Spain, Spanish, Spaniard, 110, 127, 160, 186, 196 f., 250
- Sparta, Spartan, 33 f., 52 f., 56 f., 63, 92, 98, 115, 119, 135, 137, 140, 142, 145, 149, 163 f., 168, 185, 187, 194 ff., 199, 256 f.
- Spartan Empire, 157
- Sphinx (T), 31, 88, 146 f., 153
- Spit, *see* Obel, Obelos
- Sppndaza, 153
- Stag (T), 27, 37, 237
- Standards, Aeginetan, *see* Pheidonian
- Attic (including Attic-Euboic), 37, 53, 57, 65 ff., 69, 72 f., 75, 90, 95, 100, 108, 110 f., 116, 123, 141 f., 147 ff., 154, 158, 183, 195, 200 f., 205 f., 208 f., 211, 234 ff., 238, 240, 242 f., 250, 253 f.
- Babylonian, 8, 62 f.
- Chian, 42, 95, 142, 145 ff., 158, 176, 181, 185, 205, 239 f., 252
- Cistophoric, 239
- Corcyrean, 70 f., 81, 124, 158, 195, 255
- Corinthian, 39, 70 f.
- Cyrenaic or Phoenician, 183, 240 f.
- Euboic, 18 f., 31, 41, 45, 82
- Indian, 229, 235
- Italiote, 120, 158
- Litra, 72 f., 75, 128, 246 ff.
- Lycian, 152
- Lydo-Milesian, 18 f., 25, 30 f., 42, 60 ff., 65, 87 f., 148 f., 174
- Maps showing distribution, 81, 175
- Paeonian, 65 f., 69, 139, 141
- Persian, Persian, 63, 86 f., 89, 95, 98, 139, 142, 152, 154, 158, 184 ff., 205, 208 f., 211
- Pheidonian (Aeginetan), 33 f., 37, 40 f., 45, 55 ff., 90, 95 f., 98, 110, 140, 148 f., 152, 159 f., 169, 181, 203, 205, 256 f.
- Phocaic-Chian, 30 f., 42
- Phoenician (=Cyrenaic), 183 f., 240 f., 243
- Ptolemaic, 248 ff., 254
- Rhodian, 240, 252
- Table of, 42
- Thracian (=Paeonian), 141 f., 149 f., 198 f., 205
- Star (T), 172, 174
- and crescent badge, 237, 263
- evening (T), 160
- Stasandros, 153
- Stasikypros, 154
- Stasioikos, 154
- Steer-wrestling, 160
- Stesagoras, son of Cimon, 85 f.

Strategos, head of a, 193
 Strymon, Strymonian, 69
 Sturgeon (T), 180
 Stympthalian bird (T), 166
 Stymphalus, Stymphalian, 165 f., 169, 171
 Successors, The, Chs. XIII, XIV
 Sulla, 260, 263 f.
 Sumer, Sumerian, 1, 10, 20
 Sunium, 260
 Susa, 164, 206, 211, 213 f., 228
 Sussex, 202
 Swan (S), 168
 — (T), 182
 Swastika (T), 20, 39, 153, 171, 193
 Switzerland, 201
 Sybaris, Sybarite, 77 f., 114
 Sybrita, 173
 Syllabary, Cypriot, 64, 154
 Symbols, on Corinthian coins, 117 f.
 Syme, 111
 Syra, 90
 Syracuse, Syracusan, 73 ff., 79, 99, 101 ff., 113, 116 f., 121, 123 ff., 148, 150, 159 f., 168, 172, 186 ff., 196 f., 206 f., 222, 245 ff., 251, 259 f., 266
 Syracuse, collapse of, 191
 — last of Democracy, 249
 — refoundation of, 191 f.
 Syria, Syrian, 3, 7 f., 155, 201, 208 f., 219, 238, 260, 264
 Syria, Roman province, 233

T

Taenarum, 33
Tagos, Tageia, 89, 161
 Talent, copper or bronze, 5 ff., 45, 102
 — gold, 5 ff., 8, 12, 33, 102
 Talos (or Talon) (T), 170
 Tanagra, 54 ff., 95, 158
 — figurines, 55
 Tanit, 249
 Taos, 185, 194
 Taras (T), 119, 251
 — infant supplicating Poseidon, 195
 Tarentum (Taras), Tarentine, 22, 77 ff., 113, 115, 119 f., 194 ff., 246 f., 250 f.
 Tarsus, Tarsian, 121, 184 f., 205, 208, 211 f.
 Tarsus, Alexander mint, 208 f., 211
 Tartary, Chinese, 234
 Tāththivāibi, 153
Taurokathapsia, 160
 Tauromenium, 188
 Taurus, 7
 Taxila, 215
 Taygetus, 33

Tegea, 107, 165
 Tel-el-Amarna letter, 9
 Temenos, Temenid, 34, 205
 Temple treasuries, 9 ff.
 "Ten Thousand," The, 63
 Tenos, 89 f.
 Teos, Teian, 64 f., 79, 142
 Teres, 144
 Terina, 106, 117, 121 f., 134
 Terina-Nike (T), 121 f.
 Terone, 66 f., 69
 Terracottas, 119. *See also* Tanagra figurines
 Tetrarch of Thessaly, 161
 Tetraskes (T), 153
 Tharragoras (T), 120
 Thasos, Thasian, 66, 69, 111, 141 f., 144 f., 150, 152, 200, 226
 Thasos, relief from gate of, 145
 Theagenes, 40
 Thebe (T), 156
 Thebes, Theban, 55 f., 58, 95, 98, 113, 156 ff., 164, 187, 202, 222
 Themistocles, 84, 93, 107 f.
 Theocritus, 241 f., 248
 Theopompos, 159
 Theoric pay, 110
 Thera, 41, 82
 Thermae near Himera, 129, 194
 Thermaic Gulf, 69
 Thermopylae, 101, 159
 Theron, 105, 129
 Thespiae, 158
 Thessalian garb, 139
 Thessalonice, 226
 Thessaly, Thessalian, 73, 89, 95, 127, 139, 160 ff., 261
 Thetis on dolphin (T), 181
 — on hippocamp (T), 251
 Thrace, Thracian, 20, 41, 50, 64 ff., 69 f., 74, 79, 83, 85, 89, 139, 141 f., 150, 219, 221
 Thracian princes, 144
 Thrasybulus, 28 f., 30, 87
 Thrasydaeus, 129
 Thucydides, 99, 143, 174
 Thunderbolt (T), 96, 106, 132, 163 f., 167 f., 193, 195, 246, 249.
 Thurii, Thurian, 114 f., 118, 122, 160
 Thutmose, III, 7
 Thyateira, 239
 Tigranes of Armenia, 233
 Tigris, 110
 Timarchus, 231
 Timoleon, 190 ff., 222, 245
 Timotheus (Tyrant), 181
 Tiribazus, 184 f.
 Tiridates I, 236
 Tiryns, 10
 Tissaphernes, 153

Tmolus, 20
 Tochari, 235
 Tomb paintings, Etruscan, 125
 Tomi, 238
 Tools in mint, *see* Coining
 Tortoise (T), 162
 Trapezus, 181
 Treasurers of Athena, 257
 Trident (T), 173
 Tridrachms, 98, 111, 142, 147, 158
Trinakria, 190
 Tripod (S), 169
 — (T), 78, 98, 120 f., 144, 149, 188
 Triptolemos, 155
 — (T), 113
 Triskeles (S), 190, 245 f.
 — (T), 47 f., 153, 174, 193
 — symbol of Sicily, 190, 194
 Triton, 172
 Troezen, 36, 111, 266
 Trophies, pair of (T), 263
 Troy, Trojan, 5, 12, 168
 Tryphon, 232
 Tunisia, 110
 Tunny-fish, 113
 — (T), 157
 Turk, Turkish, 237
 Turtle, leather-backed (T), 36 ff., 53.
 82, 95, 107, 111, 162, 169
 Turtles, proverb about, 95
 Tushratta, 9
 Tutankamen, 9
 Tyche (T), 232 f., 236
 — of Antioch (T), 233
 Tylissos, 7
 Tyre, 183 f., 209 f., 230, 232
 Tyrrhenian, *see* Etruria

U

United States, 131, 160, 265
 Ur, 2

V

Vase-painters, 48, 115, 125
 — — Berlin painter, 133
 — — Bowdoin painter, 91
 — — Brygos painter, 127, 133, 145
 — — Duris, 126, 133
 — — Kleophrades painter, 133
 — — Makron, 133
 — — Menon painter, 48
 — — Polygnotos, 126
 — — Sotades painter, 145
 Vases, Attic black-figure, 46
 — Attic, export of, 133, 155
 — Attic, fourth century, 179, 182

— Attic red-figure, 46, 155
 — with Euainetos coin-type, 127
 Velia, 77, 79 f., 115, 118
 Verona, 266
 Via Egnatia, 69
 Victorian penny, 125
 Vienna, 116
 Vine (T), 140, 144
 Vitelia, 101

W

Walwesh, 26
 Wanaktorion, 117
 Waning moon (S), 91 f.
 War-galley (T), 184
 Wasp and grapes (T), 174
Wasps of Aristophanes, 109
 "Water of freedom," 169
 Weight-systems, *see* Standards
 Weights (duck-shaped), 8
 Welchanos (T), 170
 Wheel (T), 47, 54, 74 f., 102, 119, 125,
 174, 180, 196, 202
 "Whitelegs," 46 f.
 Willow-tree, 170
 Wine, 67
 Winged man-bull (T), 27
 Winged oriental deity (T), 27
 Wolf (S), 169
 — (T), 95, 168, 256
 Wurtemberg, 201

X

Xanthippus, 108
 Xanthus, 153
 Xenophanes of Colophon, 14 f., 61
 Xenophon, 163
 Xerxes, 152

Y

Yahweh, 154 f., 230
 Yorkshire, 202, 265

Z

Zacynthus, 158
 Zailioi, 66
 Zama, battle of, 250
 Zancle, 71, 77 ff., 99 f., 134 f.
 Zeno the Stoic, 259, 261
 Zeus, 4, 54, 96 f., 136, 166, 169, 171,
 173

Zeus, (T), 97, 106 f., 164 f., 167 f., 181,
 185 f., 199 f., 218, 229, 234, 236 ff.,
 240 f., 247, 256
 — Aitnaïos, 131 ff.
 — Akraios (T), 172
 — Amarios (T), 167, 256
 — Ammon, 183
 — Chryselephantine, 231
 — Diktaios, 172
 — Dodonean (T), 195
 — Eleutherios (T), 120, 192 f.
 — Ithomatas, 135, 166
 — Labrayndos, 186
 — Larisaïos, 161

— Liberator, 192 f.
 — Lycaeus, 97, 107, 165
 — Olympios, 131, 205, 230 f., 232 f.
 — Welchanos (T), 170
 — and Hera (T), 237
 — and Europa, amours of, 170
 — Heracles, Athena, altars to, and as
 Alexander coin-types, 208
 Zeus-bull (T), 169 f.
 Zeus-eagle (T), 170
 Zeus-mint, Olympia, 97, 107, 164, 168
 Zipoetes, 237
 Zoilos, 226

KEY TO PLATES

The following ABBREVIATIONS are employed:

<i>A</i> = gold	EL = electrum
<i>AR</i> = silver	Æ = bronze
g. = grammes	sign. = with signature of artist
ca. = about	cent. = century
dr. = drachm, 2 dr. = didrachm, 4 dr. = tetradrachm, etc.	
st. = stater, 2 st. = double stater, etc.	
ob. = obol, 2 ob. = diobol, etc.	

The majority of the coins illustrated are in the British Museum; those which are in other collections are noted below.

PLATE I

	PAGE
1. Egyptian ring, <i>A</i> ca. 15th cent. 4.8 g.	5
2. "Talent" from Cyprus, <i>A</i> ca. 11th cent. 8.6 g.	5, 17, 18, 39
3. "½-talent" from Cyprus, <i>A</i> ca. 11th cent. 4.68 g.	5, 22
4. Uncoined blank from Euboea, <i>AR</i>	22
5. Barbarous "bullet-money," <i>A</i>	22
6. Pangaeian, EL 7th cent. Rosette	20
7. " EL 7th cent. Swastika	20
8. Asiatic "dump," EL st. 7th cent. No type	18, 72
9. " " EL ½ st. 7th cent. No type	18
10. " " EL st. 7th cent. No type	18
11. Lydia, EL st. 7th cent. Lion	18, 25
12. " EL ½ st. 7th cent. Lion's head	25
13. " EL ½ st. ca. 600. Lion's head	25, 26
14. Cimmerians, EL ½ st. 7th cent. Lion's head	25
15. Ionia, EL st. 7th cent. Cocks	27
16. " EL ½ st. 7th cent. Heracles' head	27
17. " EL st. 7th cent. Ram	27
18. " EL ½ st. 7th cent. Eagle	27
19. " EL st. 7th cent. Stag	27, 28, 37
20. " EL ½ st. 7th cent. Gorgon	27
21. " EL st. 7th cent. Horse	27
22. " EL ½ st. 7th cent. Pegasus	27
23. " EL st. 7th cent. Lion-scalps	27
24. " EL ½ st. 7th cent. Oriental god	27
25. " EL st. 7th cent. Winged bull	18, 27

16, 21, 23 Paris; 18 Chandon de Briailles; 15 Commerce; 13 Cook;
25 Jameson; 17 Newell; 1, 4, 5, 7, 8, 9 Seltman.

PLATE II

	PAGE
1. Miletus, EL st. ca. 600. Lion	29
2. Ephesus, EL $\frac{1}{2}$ st. ca. 600. Bee	29
3. Phocaea, EL st. 7th cent. Seal	30
4. " EL $\frac{1}{2}$ st. 7th cent. Seal's head	30
5. " \mathcal{A} dr. 6th cent. Seal	31
6. Chios, \mathcal{A} 2 dr. 7th cent. Sphinx	31
7. " EL st. 7th cent. Sphinx	31
8. Samos, EL 4 dr. 7th cent. No type	31
9. " EL 2 dr. 7th cent. Lion-scalp	31
10. " \mathcal{A} dr. 7th cent. Lion-scalp	31
11. " \mathcal{A} dr. 6th cent. Lion-scalp	32
12. Aegina, \mathcal{A} 2 dr. 7th cent. Turtle	38
13. " \mathcal{A} dr. 7th cent. Turtle	38
14. " \mathcal{A} ob. 7th cent. Turtle	38
15. " \mathcal{A} 2 dr. 7th cent. Turtle	38
16. Corinth, \mathcal{A} st. 7th cent. Pegasus	39, 76
17. " \mathcal{A} st. ca. 600. Pegasus	39, 54, 71
18. " \mathcal{A} dr. ca. 600. Pegasus	39
19. " \mathcal{A} ob. ca. 600. Pegasus	39
20. " \mathcal{A} st. ca. 600. Pegasus	39, 71

10 Berlin; 5 Paris; 4, 15 Seltman.

PLATE III

1. Megara, \mathcal{A} 2 dr. 7th cent. 2 dolphins	40
2. " \mathcal{A} 2 dr. 7th cent. Goat on dolphin	40
3. " \mathcal{A} dr. 7th cent. Man on dolphin	40
4. Melos, \mathcal{A} 2 dr. 7th cent. Apple	40
5. Carthaea, \mathcal{A} 2 dr. 7th cent. Wine-amphora	40
6. Cos, \mathcal{A} 2 dr. 7th cent. Crab	41
7. Camirus, \mathcal{A} 2 dr. ca. 600. Fig-leaf	41, 82
8. Athens \mathcal{A} 2 dr. ca. 600. Oil-amphora	43, 45
9. " \mathcal{A} 2 dr. ca. 594. Oil-amphora	45
10. " \mathcal{A} ob. ca. 594. Oil-amphora	45
11. " \mathcal{A} 2 dr. ca. 590. Oil-amphora	45, 46
12. " \mathcal{A} 2 dr. ca. 590. Triskeles	47
13. " \mathcal{A} 2 dr. ca. 575. Horse, forepart	47
14. " \mathcal{A} 2 dr. ca. 575. Horse, hindquarters	47
15. " \mathcal{A} 2 dr. ca. 575. Wheel	47
16. Pisistratus, \mathcal{A} 4 dr. ca. 566. Athena/Owl	48
17. " \mathcal{A} ob. ca. 560. Athena/Owl	48
18. Athens, \mathcal{A} 2 dr. ca. 550. Gorgon	50, 53
19. " \mathcal{A} 2 dr. ca. 550. Bull's head	47, 50
20. " \mathcal{A} 2 dr. ca. 550. Owl	50

12, 17, 19, 20 Berlin; 1 Boston; 16 Brussels; 5 Copenhagen; 15 Paris;
3, 4 Empedocles; 8 Jameson; 14 Newell; 9 Seltman.

PLATE IV

	PAGE
1. Pisistratus, \mathcal{R} 4 dr. ca. 550. Athena/Owl	48
2. " \mathcal{R} 4 dr. ca. 540. Athena/Owl	51
3. " \mathcal{R} dr. ca. 540. Athena/Owl	51
4. " \mathcal{R} ob. ca. 540. Athena/Owl	51
5. Hippias, \mathcal{R} 4 dr. ca. 525. Athena/Owl	51
6. " \mathcal{R} 4 dr. ca. 520. Athena/Owl	51, 86
7. " \mathcal{R} 4 dr. ca. 520. Athena/Owl	51
8. "Exiles," EL $\frac{1}{8}$ st. ca. 512. Owl	52
9. " EL $\frac{1}{12}$ st. ca. 512. Leg	52
10. " EL $\frac{1}{12}$ st. ca. 512. Bull's head	52
11. Athens, \mathcal{R} 4 dr. ca. 510. Gorgon/Bull's head	52, 86
12. " \mathcal{R} 4 dr. ca. 510. Gorgon/Lion's head	52, 86
13. Aegina, \mathcal{R} 2 dr. 6th cent. Turtle	53
14. Corinth, \mathcal{R} st. 6th cent. Pegasus/Athena	54
15. " \mathcal{R} dr. 6th cent. Pegasus/Aphrodite	54, 67
16. Chalcis, \mathcal{R} 2 dr. 6th cent. Eagle/Wheel	54, 83
17. " \mathcal{R} 2 dr. 6th cent. Eagle/Wheel	54, 83, 96

1 Athens; 4, 8, 16 Berlin; 9 Boston; 7 Gulbenkian; 12 Jameson;
2 Locker-Lampson; 10, 13 Seltman; 5 Weber.

PLATE V

1. Tanagra, \mathcal{R} 2 dr. 6th cent. Shield	55
2. Haliartus, \mathcal{R} 2 dr. 6th cent. Shield	56
3. Aulis, \mathcal{R} 2 dr. 6th cent. Shield	56
4. Pharae, \mathcal{R} 2 dr. 6th cent. Shield	56
5. Thebes, \mathcal{R} 2 dr. 6th cent. Shield	56
6. Tanagra, \mathcal{R} 2 dr. 6th cent. Shield	56
7. Orchomenos, \mathcal{R} ob. 6th cent. Corn-grain	56
8. Chalcis, \mathcal{R} 4 dr. ca. 506. Shield/Wheel	57, 86
9. Tanagra, \mathcal{R} 2 dr. ca. 506. Shield/Wheel	57
10. Athens, \mathcal{R} 4 dr. ca. 500. Athena/Owl	58
11. " \mathcal{R} 4 dr. ca. 500. Athena/Owl	58, 87, 105
12. " \mathcal{R} dr. ca. 500. Athena/Owl	58
13. " \mathcal{R} 3 ob. ca. 500. Athena/Athena	58
14. " \mathcal{R} 1 $\frac{1}{2}$ ob. ca. 500. Athena/Athena	58
15. " \mathcal{R} ob. ca. 500. Athena/Owl	58
16. " \mathcal{R} $\frac{1}{2}$ ob. ca. 500. Athena/Owl	58

8, 12, 13, 14, 16 Berlin; 3, 10 Paris; 11 Miller; 7 Seltman.

PLATE VI

1. Croesus, EL st. ca. 561. Lion and bull	60, 61
2. " \mathcal{R} 2 dr. ca. 550. Lion and bull	60, 61
3. " \mathcal{R} dr. ca. 550. Lion and bull	60
4. " \mathcal{A} st. ca. 550. Lion and bull	60, 61

	PAGE
5. Persia, Δ daric, 6th cent. Great King	62, 63
6. " Δ daric, 5th cent. Great King	62, 63
7. " Δ shekel, 5th cent. Great King	62, 63
8. Salamis, Δ $\frac{1}{2}$ st. 6th cent. Ram	64
9. " Δ st. ca. 500. Ram/Ankh	64, 153
10. Teos, Δ st. ca. 550. Griffin	64
11. Abdera, Δ 8 dr. ca. 540. Griffin	64
12. " Δ 4 dr. ca. 520. Griffin	64
13. Dicaea, Δ 4 dr. ca. 520. Heracles' head	65
14. Maroneia, Δ 2 dr. ca. 520. Half horse	66
15. Thasos, Δ 2 dr. ca. 550. Satyr and nymph	66, 145
16. Letaioi, Δ 2 dr. ca. 550. Satyr and nymph	66
17. Zailioi, Δ 2 dr. ca. 520. Centaur and nymph	66

13 Berlin; 12 Cambridge; 1 Munich; 11 Paris; 9 Seltman.

PLATE VII

1. Bisaltians, Δ 8 dr. ca. 520. Ox-cart	66
2. Orrheskioi, Δ 8 dr. ca. 520. Man and oxen	66, 139
3. Edonians, Δ 8 dr. ca. 520. Man and oxen	66, 83, 139
4. Potidaea, Δ 4 dr. ca. 530. Poseidon	67
5. " Δ 4 ob. ca. 520. Poseidon/Head	67
6. Mende, Δ 4 dr. ca. 520. Ass and vine	67
7. Terone, Δ 4 dr. ca. 520. Amphora	67
8. Acanthus, Δ 4 dr. ca. 530. Lion and Bull	68, 74
9. " Δ 4 dr. ca. 520. Lion and Bull	64, 74, 105

5 Seltman.

PLATE VIII

1. Bottiaea, Δ st. 6th cent. Cow and calf	69
2. " Δ st. 6th cent. Cow and calf	69
3. Corcyra, Δ dr. 6th cent. Cow's head	70
4. " Δ 4 dr. 6th cent. Cow and calf	70
5. " Δ 2 dr. 6th cent. Half cow	70
6. Himera, Δ 2 dr. 6th cent. Cock	71
7. " Δ 2 dr. 6th cent. Cock	71
8. Selinus, Δ 2 dr. 6th cent. Leaf	72
9. Naxos, Δ 2 dr. 6th cent. Dionysus/Grapes	71
10. " Δ 2 dr. 6th cent. Dionysus/Grapes	71
11. Sicilian "dump," Δ 7th cent. No type	72
12. Acragas, Δ 2 dr. ca. 520. Eagle/Crab	76
13. Syracuse, Δ 4 dr. ca. 520. Chariot	74
14. " Δ 4 dr. ca. 520. Chariot/Head	74, 101

9, 13 Berlin; 8, 10 Cambridge; 6, 11, 12 Seltman.

PLATE IX

	PAGE
1. Syracuse, \mathcal{A} 4 dr. ca. 510. Chariot/Head	74, 75
2. „ \mathcal{A} 2 dr. ca. 510. Horseman/Head	74, 75
3. „ \mathcal{A} dr. ca. 500. Horseman/Head	74, 75
4. „ \mathcal{A} ob. ca. 500. Head/Wheel	74, 75
5. „ \mathcal{A} litra, ca. 500. Head/Cuttlefish	74, 75
6. „ \mathcal{A} 4 dr. ca. 490. Chariot/Head	74
7. Leontini, \mathcal{A} 4 dr. ca. 490. Chariot/Lion-head	75
8. Gela, \mathcal{A} 4 dr. ca. 490. Chariot/River-bull	75
9. „ \mathcal{A} 4 dr. ca. 490. Horseman/River-bull	75
10. Massalia, \mathcal{A} 2 ob. 6th cent. Head	80
11. „ \mathcal{A} 3 ob. 6th cent. Half lion	80
12. Velia, \mathcal{A} dr. 6th cent. Half lion	80
13. Cyrene, \mathcal{A} 4 dr. 6th cent. Silphium seeds	82
14. „ \mathcal{A} dr. 6th cent. Silphium seeds	82

3, 14 Cambridge; 2, 4, 8, 10 Paris; 6, 9, Lloyd; 7 de Nanteuil;
5, 12 Seltman.

PLATE X

1. Croton, \mathcal{A} st. 530-510. Tripod	76, 78
2. Sybaris, \mathcal{A} st. 530-510. Bull	76, 78
3. Sirinian Pyxus, \mathcal{A} st. 530-510. Bull	76, 79
4. Metapontum, \mathcal{A} st. 530-510. Barley	76, 79
5. Tarentum, \mathcal{A} st. ca. 510. Apollo	76, 79
6. „ \mathcal{A} st. ca. 510. Phalanthus	76, 79
7. Caulonia, \mathcal{A} st. 530-510. Apollo	76, 79
8. Rhegium, \mathcal{A} st. ca. 510. Bull	76, 79
9. Zancle, \mathcal{A} st. ca. 510. Dolphin	76, 79
10. Poseidonia, \mathcal{A} st. 530-510. Poseidon	76, 79

8 Paris; 9 Lloyd.

PLATE XI

1. Eretria, \mathcal{A} 4 dr. ca. 505. Cow/Cuttlefish	67, 84, 105
2. „ \mathcal{A} 4 dr. ca. 495. Cow/Cuttlefish	67, 84, 105
3. Dicaea, \mathcal{A} 4 dr. ca. 500. Cow/Cuttlefish	67, 69, 84
4. Carystus, \mathcal{A} 2 dr. ca. 500. Cow/Cock	69, 84
5. Chersonese, \mathcal{A} 4 dr. ca. 550. Chariot	85
6. „ \mathcal{A} 8 ob. ca. 550. Horseman	85
7. „ \mathcal{A} 4 ob. ca. 550. Horseman	85
8. „ \mathcal{A} 8 ob. ca. 520. Horseman	86
9. „ \mathcal{A} 4 dr. ca. 520. Head/Chariot	86
10. „ \mathcal{A} 4 ob. ca. 510. Horseman	86
11. „ \mathcal{A} 4 dr. ca. 495. Lion/Athena	29, 87
12. „ \mathcal{A} 4 dr. ca. 495. Lion/Athena	29, 87
13. „ \mathcal{A} 4 ob. ca. 495. Half lion	87

3, 10, 11, 13 Berlin; 1, 2, 12 Paris; 9 Empedocles.

PLATE XII

PAGE

1. Ionian Revolt, EL st. ca. 499. Eagle	83, 88
2. " " EL st. ca. 499. Half bull	83, 88
3. " " EL st. ca. 499. Athena	83, 88
4. " " EL st. ca. 499. Sow	83, 88
5. " " EL st. ca. 499. Cock	83, 88
6. " " EL st. ca. 499. Pegasus	83, 88
7. " " EL st. ca. 499. Winged boar	83, 88
8. " " EL st. ca. 499. Two lions	83, 89
9. Erythrae, AR st. ca. 499. Horseman	88
10. Larisa, AR dr. ca. 500. Horse/Sandal	89
11. " AR $\frac{1}{2}$ dr. ca. 500. Jason	89
12. Delos, AR 2 dr. 6th cent. Lyre	90
13. Naxos, AR 2 dr. 6th cent. Kantharos	90
14. Paros, AR dr. 6th cent. Goat	90
15. Athens, AR 4 dr. ca. 495. Athena/Owl	91
16. " AR 4 dr. ca. 490. Athena/Owl	91
17. " AR 4 dr. ca. 485. Athena/Owl	91, 92, 94, 108
18. " AR 4 dr. ca. 480. Athena/Owl	92, 108

12 Athens; 10, 16 Berlin; 17 Boston; 13 Cambridge; 2, 4, 5, 7, 11, 15 Paris;
3 Jameson; 6 Hindamian; 18 Seltman.

PLATE XIII

1. Athens, AR 2 dr. ca. 485. Athena/Owl	94
2. " AR 10 dr. ca. 485. Athena/Owl	94
3. Thebes, AR 2 dr. ca. 490. Shield/Amphora	95
4. Argos, AR 3 ob. 6th cent. Wolf	95
5. Sicyon, AR dr. 6th cent. Dove	95
6. Heraea, AR 3 ob. 6th cent. Hera	96
7. " AR 3 ob. 6th cent. Zeus/Head	97
8. " AR 3 ob. ca. 500. Zeus/Head	97
9. Olympia, AR 2 dr. ca. 500. Eagle/Thunderbolt	96
10. " AR 2 dr. ca. 500. Eagle/Thunderbolt	96
11. " AR 2 dr. ca. 480. Eagle/Nike	96, 105
12. " AR 2 dr. ca. 480. Eagle/Nike	96, 105
13. Mantinea, AR 3 ob. 6th cent. She-bear	24, 95
14. Delphi, AR 3 dr. ca. 478. Rams' heads/Dolphins	98
15. " AR ob. ca. 500. Tripod/Phiale	98

8 Oxford; 6, 12, 14 Paris; 4, 13, 15 Seltman; 2 Warren.

PLATE XIV

1. Samos, AR 4 dr. 5th cent. Lion-scalp/Prow; Bull's head	100, 147
2. Samians in West, AR 4 dr. ca. 494. Lion-scalp/Prow	100
3. Rhegium, AR 4 dr. ca. 494. Lion-scalp/Calf's head	100
4. Messana, AR 4 dr. ca. 490. Lion-scalp/Calf's head	101

	PAGE
5. Zancle, \mathcal{R} 2 dr. ca. 490. Dolphin/Shell	100
6. Rhegium, \mathcal{R} 4 dr. ca. 480. Mules/Hare	102
7. Messana, \mathcal{R} 4 dr. ca. 480. Mules/Hare	102
8. Syracuse, \mathcal{R} ob. ca. 479. Head/Wheel	102
9. „ \mathcal{R} 10 dr. ca. 479. Chariot/Head	102
10. „ \mathcal{R} 4 dr. ca. 479. Chariot/Head	102
11. Leontini, \mathcal{R} 4 dr. ca. 479. Chariot/Head	103
12. „ \mathcal{R} 4 dr. ca. 479. Chariot/Head	103

1 Berlin; 8 Paris; 5 Lloyd.

PLATE XV

1. Himera, \mathcal{R} 2 dr. ca. 490. Cock/Hen	105
2. „ \mathcal{R} 2 dr. ca. 482. Cock/Crab	105
3. Acragas, \mathcal{R} 2 dr. ca. 482. Eagle/Crab	105
4. Olympia, \mathcal{R} 2 dr. ca. 470. Eagle/Zeus	106, 107
5. „ \mathcal{R} 2 dr. ca. 450. Eagle/Zeus	106, 107
6. „ \mathcal{R} 2 dr. ca. 450. Eagle/Thunderbolt	106
7. „ \mathcal{R} 2 dr. ca. 450. Eagle/Nike. Sign. <i>Euth...</i>	106, 107
8. „ \mathcal{R} 2 dr. ca. 450. Eagle/Nike	106
9. „ \mathcal{R} 2 dr. ca. 440. Eagle/Nike	106
10. „ \mathcal{R} 2 dr. ca. 440. Eagle/Nike	106, 107
11. „ \mathcal{R} 2 dr. ca. 440. Zeus/Eagle	107
12. „ \mathcal{R} 2 dr. ca. 440. Zeus/Eagle	107
13. Heraea, \mathcal{R} 3 ob. ca. 440. Zeus/Head	107
14. Themistocles, \mathcal{R} 2 dr. ca. 460. Apollo/Falcon	108
15. „ \mathcal{R} 2 dr. ca. 460. Apollo/Falcon	108

5, 13, 15 Berlin; 4, 9, 10 Paris; 11 Jameson; 1, 2, 3 Seltman.

PLATE XVI

1. Athens, \mathcal{R} 4 dr. ca. 460. Athena/Owl	108, 109
2. „ \mathcal{R} dr. ca. 460. Athena/Owl	109
3. „ \mathcal{R} 3 ob. ca. 460. Athena/Owl	109
4. „ \mathcal{R} 1½ ob. ca. 460. Athena/Owl	109
5. „ \mathcal{R} ob. ca. 460. Athena/Owl	109
6. „ \mathcal{R} ½ ob. ca. 460. Athena/Owl	109
7. Aegina, \mathcal{R} 2 dr. ca. 470. Turtle	111
8. Troezen, \mathcal{R} dr. ca. 450. Athena/Trident	111
9. Athens, \mathcal{R} 4 dr. ca. 450. Athena/Owl	108
10. „ \mathcal{R} 4 dr. ca. 440. Athena/Owl	108, 116
11. Lampsacus, El st. ca. 450. Pegasus	113
12. Lesbos, EL ⅓ st. ca. 470. Boar/Lion's head	114
13. „ EL ⅓ st. ca. 470. Horse/Heracles	114
14. „ EL ⅓ st. ca. 440. Athena/Calves	114
15. „ EL ⅓ st. ca. 400. Hera/Hermes	114

	PAGE
16. Mytilene, EL st. ca. 440. Apollo	113
17. Phocaea, EL $\frac{1}{8}$ st. ca. 470. River-god	114
18. " EL $\frac{1}{8}$ st. ca. 470. Goddess	114
19. " EL $\frac{1}{8}$ st. ca. 470. Lion	114
20. " EL $\frac{1}{8}$ st. ca. 420. Goddess	114
21. " EL $\frac{1}{8}$ st. ca. 420. Hermes	114
22. " EL $\frac{1}{8}$ st. ca. 400. Athena	114

11 Cambridge; 9 Greene; 1, 2, 4, 5, 6, 8, 10 Seltman.

PLATE XVII

1. Cyzicus, EL st. ca. 550. Tunny-fish head	113
2. " EL st. ca. 500. Goat's head	113
3. " EL st. ca. 470. Phalanthus	113
4. " EL st. ca. 420. Harmodios	113
5. " EL st. ca. 420. Athena	113
6. " EL st. ca. 420. Zeus Ammon	113
7. " EL st. ca. 420. Triptolemos	113
8. " EL st. ca. 420. Cecrops	113
9. " EL st. ca. 420. Ge	113
10. " EL $\frac{1}{8}$ st. ca. 410. Owl	113
11. " EL st. ca. 410. River-bull	113
12. " EL st. ca. 410. Pegasus	113
13. " EL st. ca. 400. Heracles and lion	113
14. " EL st. ca. 350. Eagles and omphalos	113
15. Amphipolis, \mathcal{A} 4 dr. ca. 420. Apollo/Torch	116, 126
16. " \mathcal{A} 4 dr. ca. 400. Apollo/Torch	116
17. " \mathcal{A} 4 dr. ca. 380. Apollo/Torch	116

1, 9, 17 Berlin; 5, 13, 15 Paris; 16 Jameson.

PLATE XVIII

1. Laus, \mathcal{A} 2 dr. ca. 470. Bull/Bull	114
2. Poseidonia, \mathcal{A} 2 dr. ca. 450. Poseidon/Bull	114
3. " \mathcal{A} 2 ob. ca. 470. Poseidon/Bull	114
4. New-Sybaris, \mathcal{A} 2 ob. ca. 445. Athena/Bull	114
5. Thurii, \mathcal{A} 2 dr. ca. 443. Athena/Bull	115
6. " \mathcal{A} 2 dr. ca. 440. Athena/Bull	115
7. " \mathcal{A} 4 dr. ca. 410. Athena/Bull	115
8. " \mathcal{A} 2 dr. ca. 400. Athena/Bull. Sign. <i>Molossos</i>	115
9. Neapolis, \mathcal{A} 2 dr. ca. 420. Athena/Bull	115
10. Velia, \mathcal{A} 2 dr. ca. 410. Athena/Lion	115
11. Heraclea, \mathcal{A} 2 dr. ca. 400. Athena/Heracles	115
12. Leucas, \mathcal{A} st. ca. 480. Pegasus/Athena	117

	PAGE
13. Corinth, \mathcal{A} st. ca. 470. Pegasus/Athena	117
14. „ \mathcal{A} st. ca. 450. Pegasus/Athena	117
15. „ \mathcal{A} st. ca. 440. Pegasus/Athena	117
16. „ \mathcal{A} st. ca. 430. Pegasus/Athena	117

12 Berlin; 10 Cambridge; 2, 6, 11 Lloyd; 3, 4, 5, 13, 14 Seltman.

PLATE XIX

1. Corinth, \mathcal{A} st. ca. 400. Pegasus/Athena	117
2. Ambracia, \mathcal{A} st. ca. 470. Pegasus/Athena	117
3. „ \mathcal{A} st. ca. 450. Pegasus/Athena	118
4. „ \mathcal{A} st. ca. 380. Pegasus/Athena	118
5. „ \mathcal{A} st. ca. 370. Pegasus/Athena	118
6. Corcyra, \mathcal{A} 4 dr. ca. 450. Cow/Stars	118
7. „ \mathcal{A} dr. ca. 450. Hera/Star	118
8. „ \mathcal{A} dr. ca. 400. Amphora/Star	118
9. Tarentum, \mathcal{A} 2 dr. ca. 500. Phalanthus/Hippocamp	119
10. „ \mathcal{A} 2 dr. ca. 500. Phalanthus/Taras	119
11. „ \mathcal{A} 2 dr. ca. 470. Phalanthus/Taras	119
12. „ \mathcal{A} 2 dr. ca. 475. Phalanthus/Taras	119
13. „ \mathcal{A} 2 dr. ca. 440. Phalanthus/Taras	119
14. „ \mathcal{A} 2 dr. ca. 450. Phalanthus/Horseman	119
15. „ \mathcal{A} 2 dr. ca. 400. Phalanthus/Horseman	119

13 Berlin; 14 Oxford; 12 Paris; 11 Jameson; 9, 10, 15 Lloyd; 1 Seltman.

PLATE XX

1. Tarentum, \mathcal{A} 2 dr. ca. 350. Horseman/Phalanthus	119
2. „ \mathcal{A} 2 dr. ca. 350. Horseman/Phalanthus	119
3. „ \mathcal{A} 2 dr. ca. 380. Horseman/Phalanthus	119
4. „ \mathcal{A} 2 dr. ca. 350. Horseman/Phalanthus	119
5. Metapontum, \mathcal{A} 2 dr. ca. 480. Barley/Achelooos	120
6. „ \mathcal{A} 2 dr. ca. 450. Karneios/Barley	120
7. „ \mathcal{A} 2 dr. ca. 400. Dionysus/Barley	120
8. „ \mathcal{A} 2 dr. ca. 410. Demeter/Barley. Sign. <i>Aristo-</i> <i>xenos</i>	120
9. „ \mathcal{A} 2 dr. ca. 340. Apollo/Barley	120
10. „ \mathcal{A} 2 dr. ca. 380. Nike/Barley	120
11. „ \mathcal{A} 2 dr. ca. 330. Zeus/Barley	120
12. „ \mathcal{A} 4 dr. ca. 300. Leukippos/Barley	120
13. „ \mathcal{A} 2 dr. ca. 300. Kore/Barley	120
14. Croton, \mathcal{A} 2 dr. ca. 480. Tripod/Tripod	120
15. „ \mathcal{A} 2 dr. ca. 430. Heracles/Tripod	121

1, 14 Cambridge; 5 Paris; 9 Jameson; 2, 3, 4, 6, 7, 8, 12, 13 Lloyd.

PLATE XXI

	PAGE
1. Rhegium, AR 4 dr. ca. 465. Lion-scalp/Oekist	121
2. " AR 4 dr. ca. 440. Lion-scalp/Oekist	121
3. Terina, AR 2 dr. ca. 480. Head/Nike	106, 122
4. " AR 2 dr. ca. 425. Head/Nike	106, 122
5. " AR 2 dr. ca. 400. Head/Nike. Sign. <i>Euainetos</i>	106, 122, 134
6. Neapolis, AR 2 dr. ca. 470. Athena/Bull	122
7. " AR 2 dr. ca. 430. Head/Bull	122
8. " AR 2 dr. ca. 380. Head/Bull	122
9. Nola, AR 2 dr. ca. 350. Head/Bull	122
10. Cumae, AR 2 dr. ca. 500. Animals' scalps/Mussel	123
11. " AR 2 dr. ca. 475. Athena/Mussel	123
12. " AR 2 dr. ca. 470. Head/Mussel	123
13. " AR 2 dr. ca. 430. Head/Mussel	123
14. " A 2 ob. ca. 475. Head/Mussel	123
15. Etruria, AR 4 dr. 6th cent. Amphora	123
16. " AR 2 dr. 5th cent. Gorgon	123
17. " AR 4 dr. 6th cent. Gorgon/Wheel	123

12 Berlin; 9 Cambridge; 13, 14 Paris; 6, 11 Jameson;

1, 2, 5, 7, 8, 10, 15 Lloyd.

PLATE XXII

1. Syracuse, AR 4 dr. ca. 474. Chariot/Head	123, 124, 125
2. " AR 4 dr. ca. 465. Chariot/Head	125
3. " AR 4 dr. ca. 455. Chariot/Head	125
4. " AR 4 dr. ca. 460. Chariot/Head	125
5. " AR 4 dr. ca. 455. Chariot/Head	125
6. " AR 4 dr. ca. 455. Chariot/Head	125
7. " AR 4 dr. ca. 445. Chariot/Head	125
8. " AR 4 dr. ca. 450. Chariot/Head	125
9. " AR 4 dr. ca. 435. Chariot/Head	125
10. " AR 4 dr. ca. 430. Chariot/Head. Sign. <i>Sosion</i>	125
11. " AR 4 dr. ca. 413. Chariot/Head. Sign. <i>Euth.</i> and <i>Phrygillos</i>	126
12. " AR 4 dr. ca. 420. Chariot/Head. Sign. <i>Euainetos</i>	126, 127

6, 11 Berlin; 10 Munich; 1, 4, 5, 7, 8, 12 Lloyd; 2 Seltman.

PLATE XXIII

1. Syracuse, AR 4 dr. ca. 412. Chariot/Head. Sign. <i>Eukleidas</i>	126
2. " AR 4 dr. ca. 410. Head/Chariot. Sign. <i>Kimon</i>	126
3. " AR 4 dr. ca. 410. Head/Chariot. Sign. <i>Kimon</i>	126
4. " AR 10 dr. ca. 412. Chariot/Head. Sign. <i>Euainetos</i>	127
5. " AR 10 dr. ca. 412. Chariot/Head. Sign. <i>Euainetos</i>	127
6. " AR 10 dr. ca. 410. Chariot/Head. Sign. <i>Kimon</i>	128

		PAGE
7.	Syracuse, \mathcal{R} dr. ca. 400. Head/Leukaspis	128, 159, 168
8.	" \mathcal{N} 100 litrae, ca. 400. Head/Heracles. Sign. <i>Euainetos</i>	128
9.	" \mathcal{N} 20 litrae, ca. 415. Heracles/Head	128
10.	" \mathcal{N} 50 litrae, ca. 400. Head/Horse	128
11.	" \mathcal{R} 4 dr. ca. 380. Head/Chariot. Sign. <i>Eukleidas</i>	186

3 Berlin; 9, 10 Cambridge; 4, 5, Paris; 8, 11 Lloyd.

PLATE XXIV

1.	Syracuse, \mathcal{R} 10 dr. ca. 410. Chariot/Head. Sign. <i>Kimon</i>	128
2.	Leontini, \mathcal{R} 4 dr. ca. 450. Apollo/Lion's head	128, 132
3.	Syracuse, \mathcal{R} 10 dr. ca. 402. Chariot/Head. Sign. <i>Euainetos</i>	128
4.	Gela, \mathcal{R} 4 dr. ca. 440. Chariot/Head	129
5.	" \mathcal{R} 4 dr. ca. 450. Chariot/Bull	128, 132
6.	Himera, \mathcal{R} 4 dr. ca. 470. Pelops/Nymph	129
7.	" \mathcal{R} 4 dr. ca. 460. Chariot/Nymph	129
8.	Selinus, \mathcal{R} 2 dr. ca. 460. Heracles/River-god	130
9.	" \mathcal{R} 4 dr. ca. 460. Chariot/River-god	130
10.	" \mathcal{R} 4 dr. ca. 410. Chariot/River-god	130

2 Cambridge; 1 Emmet; 3, 5, 7, 8, 9, 10 Lloyd.

PLATE XXV

1.	Segesta, \mathcal{R} 4 dr. ca. 460. Hunter/Nymph	130
2.	" \mathcal{R} 2 dr. ca. 470. Hound/Head	130
3.	" \mathcal{R} 4 dr. ca. 417. Hunter/Head	130
4.	Camarina, \mathcal{R} 2 dr. ca. 460. Panoply	130
5.	" \mathcal{R} 4 dr. ca. 415. Chariot/Heracles. Sign. <i>Herakleidas</i>	131
6.	" \mathcal{R} 2 dr. ca. 410. Head/Nymph. Sign. <i>Euainetos</i>	131
7.	Aetna, \mathcal{R} 4 dr. ca. 470. Seilen/Zeus	132
8.	Catana, \mathcal{R} 4 dr. ca. 460. Bull/Nike	132
9.	Naxos, \mathcal{R} 4 dr. ca. 460. Dionysus/Seilen	127, 132, 133
10.	Catana, \mathcal{R} litra, ca. 460. Seilen/Thunderbolt	132

10 Berlin; 7 Brussels; 2 Cambridge; 1 Paris; 4, 5, 6 Lloyd.

PLATE XXVI

1.	Catana, \mathcal{R} 4 dr. ca. 455. Bull/Nike	134
2.	" \mathcal{R} 4 dr. ca. 450. Chariot/Head	134
3.	" \mathcal{R} 4 dr. ca. 415. Chariot/Head. Sign. <i>Herakleidas</i>	134
4.	" \mathcal{R} 4 dr. ca. 420. Chariot/Head. Sign. <i>Euainetos</i>	134
5.	Messana, \mathcal{R} 4 dr. ca. 461. Zeus/Dolphin	135
6.	" \mathcal{R} 4 dr. ca. 460. Mules/Hare	134

	PAGE
7. Messana, \mathcal{A} 4 dr. ca. 450. Mules/Pan	135
8. Acragas, \mathcal{A} 4 dr. ca. 460. Eagle/Crab	135
9. „ \mathcal{A} 4 dr. ca. 450. Eagle/Crab	135
10. „ \mathcal{A} 4 dr. ca. 450. Eagles/Crab	135
11. „ \mathcal{A} 4 dr. ca. 420. Chariot/Eagles	136

4, 7 Berlin; 5 Brussels; 6 Cambridge; 2 Lloyd, 9 de Nanteuil; 1 Woodward.

PLATE XXVII

1. Acragas, \mathcal{A} 20 litrae, ca. 406. Eagle/Crab	137
2. „ \mathcal{A} 10 dr. ca. 410. Chariot/Eagles	136
3. Gela, \mathcal{A} 20 litrae, ca. 406. River-bull/Goddess	137
4. Camarina, \mathcal{A} 20 litrae, ca. 406. Athena/Olive twig	137
5. Carthaginians, \mathcal{A} 16 litrae, ca. 406. Palm/Horse's head	136
6. Motya, \mathcal{A} 2 dr. ca. 420. Hound/Head	136
7. Carthaginians, \mathcal{A} 4 dr. ca. 406. Horse/Palm	136
8. Athens, \mathcal{A} st. 407/6. Athena/Owl	137
9. „ \mathcal{A} $\frac{1}{2}$ st. 407/6. Athena/Owl	137
10. „ \mathcal{A} 4 dr. 406/5. Athena/Owl	138
11. „ \mathcal{A} dr. 406/5. Athena/Owl	138
12. Alexander I, \mathcal{A} 4 dr. 478 to 454. Horseman/Goat	139
13. „ \mathcal{A} 8 dr. 478 to 454. Horseman	139
14. Archelaus, \mathcal{A} st. 413 to 399. Head/Horse	139, 142
15. Scione, \mathcal{A} 4 dr. ca. 470. Protesilaos/Ship's stern	140

2, 12 Munich; 13 Paris; 6, 8 Jameson; 1, 3, 4, 5 Lloyd; 10, 11 Seltman.

PLATE XXVIII

1. Mende, \mathcal{A} 4 dr. ca. 460. Ass.	140
2. „ \mathcal{A} 4 dr. ca. 440. Dionysus/Vine	140
3. „ \mathcal{A} 4 dr. ca. 430. Dionysus/Vine	140
4. „ \mathcal{A} 4 dr. ca. 423. Dionysus/Square	140
5. Acanthus, \mathcal{A} 4 dr. ca. 410. Lion on Bull	141
6. Mende, \mathcal{A} 2 dr. ca. 400. Dionysus/Ass	140
7. Abdera, \mathcal{A} 4 dr. ca. 430. Griffin/Heracles	143
8. „ \mathcal{A} 4 dr. ca. 460. Griffin	142
9. Amphipolis, \mathcal{A} st. ca. 410. Ares/Torch	142
10. Abdera, \mathcal{A} 3 dr. ca. 430. Griffin/Apollo	143
11. „ \mathcal{A} 4 dr. ca. 440. Griffin/Pythagoras	143, 144
12. „ \mathcal{A} 3 dr. ca. 430. Griffin/Tripod	143, 144
13. „ \mathcal{A} 3 dr. ca. 430. Griffin/Dancer	143, 144

6, 13 Berlin; 5, 8 Cambridge; 7, 9, 11 Jameson; 1 de Nanteuil; 2, 3 Seltman.

PLATE XXIX

	PAGE
1. Maroneia, \mathcal{R} 4 dr. ca. 430. Horse/Vine	I44
2. „ \mathcal{R} 4 dr. ca. 400. Horse/Vine	I44
3. Thasos, \mathcal{R} 2 dr. ca. 430. Satyr and nymph	III, I44
4. „ \mathcal{R} 4 dr. ca. 410. Dionysus/Heracles	I45
5. „ \mathcal{N} $\frac{1}{2}$ st. ca. 410. Dionysus/Heracles	I42
6. Aenus, \mathcal{R} 4 dr. ca. 478. Hermes/Caduceus	I45
7. „ \mathcal{R} 4 dr. ca. 470. Hermes/Goat	I45
8. „ \mathcal{R} 4 dr. ca. 460. Hermes/Goat	I45
9. „ \mathcal{R} 4 dr. ca. 450. Hermes/Goat	I45
10. „ \mathcal{R} 4 dr. ca. 430. Hermes/Goat	I45
11. „ \mathcal{R} 4 dr. ca. 400. Hermes/Goat	I45, I46
12. Chios, \mathcal{R} 2 dr. ca. 440. Sphinx	I46
13. „ \mathcal{R} 4 dr. ca. 410. Sphinx	I47

8 Berlin; 6 Jameson; 4 de Nanteuil; 1 Seltman.

PLATE XXX

1. Chios, \mathcal{R} 4 dr. ca. 400. Sphinx	I47
2. Samos, \mathcal{R} 3 dr. ca. 460. Lion-scalp/Bull	I47
3. „ \mathcal{R} 3 dr. ca. 430. Lion-scalp/Bull	I47
4. „ \mathcal{R} 4 dr. ca. 411. Athena/Owl; Bull	I47
5. „ \mathcal{R} 4 dr. ca. 400. Lion-scalp/Bull	I48
6. Ephesus, \mathcal{R} 4 dr. ca. 400. Bee	I48
7. Cos, \mathcal{R} 4 dr. ca. 460. Athlete/Crab	III, I49
8. Ialysus, \mathcal{R} 4 dr. ca. 460. Boar/Eagle's head	I49
9. Cnidus, \mathcal{R} dr. ca. 520. Lion/Aphrodite	I48
10. „ \mathcal{R} dr. ca. 470. Lion/Aphrodite	I48
11. „ \mathcal{R} dr. ca. 460. Lion/Aphrodite	I48
12. „ \mathcal{R} dr. ca. 440. Lion/Aphrodite	I48
13. Rhodes, \mathcal{N} st. ca. 400. Helios/Rose	I50
14. „ \mathcal{R} 4 dr. ca. 408. Helios/Rose	I50
15. „ \mathcal{R} 4 dr. ca. 406. Helios/Rose	I50

7, 12 Berlin; 15 Cambridge; 4 Paris; 5, 10, 11 Seltman.

PLATE XXXI

1. Lycia, \mathcal{R} st. ca. 500. Boar	I52
2. „ \mathcal{R} st. ca. 430. Athena/Persian head	I53
3. „ \mathcal{R} st. ca. 430. Athena/Lycian head	I53
4. „ \mathcal{R} st. ca. 460. Boar/Triskeles	I53
5. „ \mathcal{R} st. ca. 450. Griffin/Triskeles	I53
6. „ \mathcal{R} st. ca. 460. Aphrodite/Tetraskeles	I53
7. Side, \mathcal{R} st. ca. 470. Pomegranate/Athena	I53
8. „ \mathcal{R} st. ca. 450. Pomegranate/Athena	I53
9. Citium, \mathcal{R} st. ca. 410. Heracles/Lion and stag	I53, I85
10. Paphos, \mathcal{R} st. ca. 425. Bull/Eagle	I53

	PAGE
11. Paphos, \mathcal{A} st. ca. 460. Bull/Eagle	153
12. „ \mathcal{A} st. ca. 450. Bull/Hawk	153
13. Citium, \mathcal{A} st. ca. 460. Heracles/Lion	153
14. Idalium, \mathcal{A} st. ca. 460. Sphinx/Lotus	153, 154
15. Lapethus, \mathcal{A} st. ca. 450. Athena/Athena	154
16. Marium, \mathcal{A} st. ca. 425. Apollo/Aphrodite	154
3, 4, 7 Paris; 8 Jameson; 5 Glasgow.	

PLATE XXXII

1. Philistia, \mathcal{A} dr. 4th cent. Head/Yahweh	154
2. „ \mathcal{A} 4 dr. 4th cent. Athena/Owl	154
3. „ \mathcal{A} dr. 4th cent. Head/Owl	154
4. League, Rhodes, \mathcal{A} 3 dr. ca. 394. Heracles/Rose	157
5. „ Iasus, \mathcal{A} 3 dr. ca. 394. Heracles/Apollo	157
6. „ Cnidus, \mathcal{A} 3 dr. ca. 394. Heracles/Aphrodite	157
7. „ Ephesus, \mathcal{A} 3 dr. ca. 394. Heracles/Bee	157
8. „ Samos, \mathcal{A} 3 dr. ca. 394. Heracles/Lion-scalp	157
9. „ Byzantium, \mathcal{A} 3 dr. ca. 394. Heracles/Bull	157
10. „ Cyzicus, \mathcal{A} 3 dr. ca. 394. Heracles/Lion's head	157
11. „ Cyzicus, \mathcal{E} L st. ca. 394. Heracles	157
12. „ Lampsacus, \mathcal{A} st. ca. 394. Heracles/Pegasus	157, 181
13. Zacynthus, \mathcal{A} 4 dr. ca. 390. Apollo/Heracles	158
14. Croton, \mathcal{A} 2 dr. ca. 390. Apollo/Heracles	158

4, 5, Berlin; 9 Boston; 14 Cambridge; 12 Paris; 2 Sangorski; 11 Seltman.

PLATE XXXIII

1. Thebes, \mathcal{A} 2 dr. ca. 446. Shield/Thebe	156
2. „ \mathcal{A} 2 dr. ca. 440. Shield/Heracles	156
3. „ \mathcal{A} 2 dr. ca. 430. Shield/Heracles	156
4. „ \mathcal{A} 2 dr. ca. 420. Shield/Heracles	156
5. „ \mathcal{A} 2 dr. ca. 400. Shield/Dionysus	156
6. „ \mathcal{A} 2 dr. ca. 400. Shield/Amphora	156
7. „ \mathcal{A} 2 dr. 394. Shield/Heracles	157
8. „ \mathcal{E} L dr. 394. Dionysus/Heracles	157
9. Haliartus, \mathcal{A} 2 dr. ca. 380. Shield/Poseidon	158
10. Tanagra, \mathcal{A} 2 dr. ca. 380. Shield/Horse	158
11. Thespieae, \mathcal{A} 2 dr. ca. 380. Shield/Aphrodite	158
12. Thebes, \mathcal{A} 2 dr. ca. 340. Shield/Amphora	158
13. „ \mathcal{A} 2 dr. ca. 370. Shield/Amphora	159
14. Opus, \mathcal{A} 2 dr. ca. 380. Demeter/Ajax	159, 168
15. Plataea, \mathcal{A} 2 ob. ca. 380. Shield/Hera	158
16. Opus, \mathcal{A} 2 dr. ca. 370. Demeter/Ajax	159, 168

10, 11 Cambridge; 16 de Nanteuil; 15 Petsalis; 12 Seltman.

PLATE XXXIV

	PAGE
1. Phocis, \mathcal{A} 3 ob. 6th cent. Bull's head/Head	159
2. " \mathcal{A} 3 ob. ca. 500. Bull's head/Head	159
3. " \mathcal{A} 3 ob. ca. 420. Bull's head/Head	159
4. " \mathcal{A} 3 ob. ca. 350. Bull's head/Head	159
5. Larisa, \mathcal{A} dr. ca. 470. Bull-thrower/Horse	160
6. " \mathcal{A} dr. ca. 400. Head/Horseman	160
7. " \mathcal{A} dr. ca. 400. Bull/Horseman	160
8. " \mathcal{A} dr. ca. 400. Bull-thrower/Horse	160
9. Pharsalus, \mathcal{A} dr. ca. 400. Athena/Horseman	160
10. Larisa, \mathcal{A} dr. ca. 380. Head/Mare	160
11. " \mathcal{A} 2 dr. ca. 390. Head/Horse	160
12. " \mathcal{A} dr. ca. 362. Aleuas/Eagle	161
13. Crannon, \mathcal{A} ca. 350. Horseman/Rain-car	162
14. Pherae, \mathcal{A} dr. ca. 365. Hecate/Lion's head	161
15. " \mathcal{A} 2 dr. ca. 365. Hecate/Horseman	161
16. Aegina, \mathcal{A} 2 dr. ca. 404. Tortoise	162
17. " \mathcal{A} 2 dr. ca. 400. Tortoise	162
18. Sicyon, \mathcal{A} 2 dr. ca. 420. Chimaera/Dove	163
19. " \mathcal{A} 2 dr. ca. 350. Chimaera/Dove	163
20. " \mathcal{A} dr. ca. 400. Dove/ Σ	163

13, 18 Cambridge; 5, 9 Seltman.

PLATE XXXV

1. Olympia, \mathcal{A} 2 dr. ca. 428. Eagle/Nike	163
2. " \mathcal{A} 2 dr. ca. 424. Eagle/Thunderbolt. Sign. <i>Da...</i>	163
3. " \mathcal{A} 2 dr. ca. 420. Zeus/Thunderbolt. Sign. <i>Da...</i>	164
4. " \mathcal{A} 2 dr. ca. 420. Eagle/Thunderbolt. Sign. <i>Da...</i>	164
5. " \mathcal{A} 2 dr. ca. 420. Hera/Thunderbolt. Sign. <i>L...</i>	164
6. " \mathcal{A} 2 dr. ca. 416. Hera/Thunderbolt	164
7. " \mathcal{A} 2 dr. ca. 408. Hera/Eagle. Sign. <i>Po...</i>	164
8. Megalopolis, \mathcal{A} 2 dr. ca. 370. Zeus/Pan	165, 200
9. Pisa, \mathcal{A} 364. Zeus/Thunderbolts	167
10. Pheneus, \mathcal{A} dr. ca. 365. Demeter/Hermes	165, 166
11. Pisa, \mathcal{A} 364. Zeus/Thunderbolt	167
12. Pheneus, \mathcal{A} 2 dr. ca. 365. Demeter/Hermes	166
13. Stymphalus, \mathcal{A} 2 dr. ca. 365. Artemis/Heracles	166
14. Messene, \mathcal{A} 2 dr. ca. 369. Demeter/Zeus	166
15. Achaea, \mathcal{A} 2 dr. ca. 366. Artemis/Zeus	167

9 Berlin; 12 Paris; 4, 10 Jameson; 3 Newell.

PLATE XXXVI

	PAGE
1. Olympia, \mathcal{A} 2 dr. 360. Zeus/Olympia	168
2. " \mathcal{A} 2 dr. 360. Olympia/Eagle	168
3. " \mathcal{A} 2 dr. ca. 350. Zeus/Eagle	168, 193, 200
4. " \mathcal{A} 2 dr. ca. 340. Zeus/Eagle	168, 200
5. Argos, \mathcal{A} 2 dr. ca. 370. Hera/Dolphins	168
6. " \mathcal{A} dr. ca. 370. Hera/Diomedes	168
7. " \mathcal{A} dr. ca. 360. Hera/Diomedes	168
8. " \mathcal{A} 2 dr. ca. 360. Hera/Dolphins	168
9. Gortyna, \mathcal{A} 2 dr. ca. 480. Europa/Lion-scalp	170
10. " \mathcal{A} 2 dr. ca. 440. Europa/Lion-scalp	170
11. Phaestus, \mathcal{A} 2 dr. ca. 480. Europa/Lion-scalp	170
12. " \mathcal{A} 2 dr. ca. 400. Talos/Head	170
13. " \mathcal{A} 2 dr. ca. 400. Europa/Hermes	170

1, 3, 9, 10, 12 Berlin; 4 Brussels; 13 Cambridge.

PLATE XXXVII

1. Phaestus, \mathcal{A} 2 dr. 4th cent. Welchanos/Bull	170
2. Gortyna, \mathcal{A} 2 dr. 4th cent. Europa/Bull	170
3. " \mathcal{A} 2 dr. 4th cent. Europa/Bull	170
4. " \mathcal{A} 2 dr. 4th cent. Europa/Bull	170
5. Cnossus, \mathcal{A} 2 dr. 5th cent. Minotaur/Labyrinth	171
6. " \mathcal{A} 2 dr. 4th cent. Head/Minos	171
7. " \mathcal{A} 2 dr. 4th cent. Hera/Labyrinth	171
8. Cydonia, \mathcal{A} 2 dr. 4th cent. Head/Bowman. Sign. <i>Neuantos</i>	171
9. Hierapytna, \mathcal{A} 2 dr. 4th cent. Zeus/Palm	171
10. Eleuthernae, \mathcal{A} 2 dr. 4th cent. Zeus/Apollo	171
11. Itanus, \mathcal{A} 2 dr. 4th cent. Triton/Sea-serpents	172
12. " \mathcal{A} 2 dr. 4th cent. Athena/Eagle	172

4, 6 Berlin; 5 Cambridge; 1 Oxford; 8, 11, 12 Paris.

PLATE XXXVIII

1. Lyttus, \mathcal{A} 2 dr. ca. 450. Eagle/Boar	172
2. Polyrrenium, \mathcal{A} $\frac{1}{2}$ dr. 4th cent. Head/Bull's head. Sign. <i>Pythodoros</i>	172
3. Aptera, \mathcal{A} 2 dr. 4th cent. Head/Founder	172
4. Praesus, \mathcal{A} 2 dr. ca. 400. Zeus/Bull	172
5. Sybrita, \mathcal{A} 2 dr. ca. 440. Hermes/Hippocamp	173
6. " \mathcal{A} 2 dr. ca. 400. Dionysus/Hermes	173
7. " \mathcal{A} 2 dr. ca. 360. Dionysus/Hermes	173
8. " \mathcal{A} 2 dr. ca. 360. Dionysus/Hermes	173
9. Rhaucus, \mathcal{A} 2 dr. 4th cent. Poseidon/Trident	173

	PAGE
10. Melos, \mathcal{R} 2 dr. ca. 470. Quince/Gorgon	174
11. „ \mathcal{R} 2 dr. ca. 450. Quince/Dolphins	174
12. „ \mathcal{R} 2 dr. ca. 450. Quince/Diagram	174
13. „ \mathcal{R} 2 dr. ca. 420. Quince/Head	174
14. „ \mathcal{R} 2 dr. ca. 380. Quince/Kantharos	174

10, 11, 12 Cambridge; 1 Oxford; 6, 13 Paris; 7 Churchill; 4 Cook.

PLATE XXXIX

1. Athens, \mathcal{R} 4 dr. 4th cent. Athena/Owl	178, 179
2. „ \mathcal{R} dr. 4th cent. Athena/Owl	179
3. „ \mathcal{R} 3 ob. 4th cent. Athena/Owl	179
4. „ \mathcal{R} 2 ob. 4th cent. Athena/Double-owl	179
5. „ \mathcal{R} ob. 4th cent. Athena/Four crescents	179
6. „ \mathcal{R} $\frac{3}{4}$ ob. 4th cent. Athena/Three crescents	179
7. „ \mathcal{R} $\frac{5}{8}$ ob. 4th cent. Athena/Owl	179
8. „ \mathcal{R} $\frac{1}{2}$ ob. 4th cent. Athena/Owl	179
9. „ \mathcal{R} $\frac{1}{4}$ ob. 4th cent. Athena/One crescent	179
10. Panticapaeum, \mathcal{R} dr. ca. 420. Lion-scalp	180
11. „ \mathcal{A} st. ca. 360. Satyr/Griffin	180
12. „ \mathcal{A} st. ca. 350. Satyr/Griffin	180
13. „ \mathcal{A} st. ca. 340. Satyr/Griffin	180
14. „ \mathcal{R} st. ca. 330. Satyr/Bull's head	181
15. „ \mathcal{R} dr. ca. 360. Satyr/Bull's head	181
16. „ \mathcal{R} 3 ob. ca. 340. Satyr/Lion	29, 181
17. „ \mathcal{A} ca. 340. Satyr/Griffin	181
18. Trapezus, \mathcal{R} dr. ca. 380. Head/Bank-table	181
19. Sinope, \mathcal{R} dr. ca. 360. Head/Sea-eagle	181
20. Heraclea, \mathcal{R} dr. ca. 350. Heracles/Hera	181
21. „ \mathcal{R} dr. ca. 340. Dionysus/Heracles	181

1 to 9, 16, 19 Seltman.

PLATE XL

1. Olbia, \mathcal{A} 5th cent. Gorgon/Sea-eagle	180
2. „ \mathcal{A} 5th cent. Dolphin-shaped coin	180
3. „ \mathcal{A} 5th cent. Dolphin-shaped coin	180

1, 2, 3 Seltman.

PLATE XLI

1. Byzantium, \mathcal{R} 4 dr. ca. 390. Bull	181
2. Calchedon, \mathcal{R} 4 dr. ca. 390. Bull	181
3. Cyzicus, $\mathcal{E}\mathcal{L}$ st. ca. 390. Head	181
4. Abydos, \mathcal{R} 4 dr. ca. 390. Apollo/Eagle	182
5. „ \mathcal{A} st. ca. 390. Artemis/Eagle	181
6. „ \mathcal{A} st. ca. 390. Nike/Eagle	181

	PAGE
7. Lampsacus, <i>A</i> st. ca. 390. Nike/Pegasus	181
8. „ „ <i>A</i> st. ca. 390. Helle on ram/Pegasus	181
9. „ „ <i>A</i> st. ca. 360. Head/Pegasus	181
10. „ „ <i>A</i> st. ca. 360. Head/Pegasus	181
11. „ „ <i>A</i> st. ca. 350. Head/Pegasus	181
12. Clazomenae, <i>A</i> st. ca. 370. Apollo/Swan	182
13. „ „ <i>AR</i> 4 dr. ca. 370. Apollo/Swan. Sign. <i>Theodotus</i>	182
14. Aradus, <i>AR</i> 2 dr. 4th cent. Head/Ship	184
15. Tyre, <i>AR</i> 2 dr. 4th cent. Sea-god/Hawk	184
16. Sidon, <i>AR</i> 8 dr. 4th cent. Ship/Great King	184
17. „ „ <i>AR</i> 2 dr. 4th cent. Ship/Great King	184

1, 2, 14, 15 Cambridge; 5, 8 Paris; 13 Jameson.

PLATE XLII

1. Cyrene, <i>AR</i> 4 dr. ca. 500. Silphium/Gazelle	183
2. „ „ <i>AR</i> 4 dr. ca. 500. Silphium/Heracles	183
3. „ „ <i>AR</i> 4 dr. ca. 450. Silphium/Ammon	183
4. Barce, <i>AR</i> 4 dr. ca. 400. Ammon/Silphium	183
5. Cyrene, <i>AR</i> 4 dr. ca. 400. Silphium/Ammon	183
6. „ „ <i>AR</i> 4 dr. ca. 400. Silphium/Ammon	183
7. „ „ <i>AR</i> 4 dr. ca. 400. Ammon/Silphium	183
8. „ „ <i>A</i> st. ca. 350. Chariot/Ammon	183
9. „ „ <i>A</i> st. ca. 320. Chariot/Ammon	183
10. Tarsus, <i>AR</i> st. ca. 385. Zeus/Ahura Mazda	185
11. Cyrene, <i>A</i> dr. ca. 320. Horseman/Silphium	183
12. Tarsus, <i>AR</i> st. ca. 385. Heracles/Persian	185
13. „ „ <i>AR</i> st. ca. 375. Arethusa/Head	185
14. „ „ <i>AR</i> st. ca. 375. Arethusa/Head	185
15. „ „ <i>AR</i> st. ca. 375. Baal/Persian	185

6 Berlin; 1, 2 Paris.

PLATE XLIII

1. Taos, <i>A</i> st. ca. 365. Athena/Owl	185
2. Maussollus, <i>AR</i> 4 dr. ca. 360. Apollo/Zeus	186
3. Syracuse, <i>AR</i> 4 dr. ca. 380. Chariot/Head	186
4. Carthaginians, <i>AR</i> 4 dr. ca. 380. Head/Horse	186
5. „ „ <i>AR</i> 4 dr. ca. 380. Head/Horse	186
6. „ „ <i>AR</i> 4 dr. ca. 380. Chariot/Head	187
7. Sicily, <i>AR</i> 4 dr. ca. 380. Head/Horse	187
8. Rhegium, <i>AR</i> 4 dr. ca. 400. Lion's scalp/Apollo. Sign. <i>Py...</i>	187
9. „ „ <i>AR</i> 4 dr. ca. 390. Lion's scalp/Apollo	187
10. Syracuse, <i>EL</i> st. ca. 380. Artemis/Apollo	188
11. „ „ <i>EL</i> $\frac{1}{2}$ st. ca. 380. Apollo/Tripod	188
12. Croton, <i>AR</i> 2 dr. ca. 360. Apollo/Tripod	188

4, 5, 12 Cambridge; 3, 6, 7, 8 Lloyd.

PLATE XLIV

		PAGE
1. Syracuse, <i>AR</i> 4 dr. ca. 390. Chariot/Head		188
2. " <i>AR</i> 4 dr. ca. 380. Chariot/Head. Sign. <i>Im...</i>		189, 190
3. " <i>Æ</i> ca. 350. Bull/Head		190, 192
4. " <i>AR</i> 10 dr. ca. 380. Head/Chariot	128, 186, 189, 190	
5. " <i>AR</i> 4 dr. ca. 380. Head/Chariot		189
6. " <i>AR</i> 4 dr. ca. 360. Head/Chariot		190
7. " <i>AR</i> 4 dr. ca. 350. Head/Chariot		190
8. New-Syracuse, <i>AR</i> st. ca. 342. Pegasus/Athena		192
9. " <i>AR</i> st. ca. 342. Pegasus/Athena	192, 193	
10. " <i>AR</i> st. ca. 342. Pegasus/Athena	192, 193	

9 Cambridge; 8 Lloyd.

PLATE XLV

1. Leontini, <i>AR</i> st. ca. 340. Pegasus/Athena	192, 193
2. Rhegium, <i>AR</i> st. ca. 340. Pegasus/Athena	192
3. New-Syracuse, <i>AR</i> st. ca. 340. Pegasus/Athena	192, 193
4. " <i>A</i> ca. 340. Pegasus/Zeus	193
5. " <i>AR</i> st. ca. 340. Pegasus/Zeus	193
6. " <i>Æ</i> ca. 340. Zeus/Horse	193
7. " <i>Æ</i> ca. 340. Zeus/Thunderbolt	193
8. " <i>Æ</i> ca. 340. Zeus/Triskeles	193
9. " <i>Æ</i> ca. 335. Strategos/Pegasus	194
10. Acragas, <i>AR</i> 3 ob. ca. 335. Crab/Horse	194
11. Tarentum, <i>A</i> st. ca. 342. Hera/Infant and Poseidon	195
12. " <i>A</i> st. ca. 333. Hera/Horseman	195
13. " <i>A</i> st. ca. 333. Zeus/Thunderbolt	195, 247
14. " <i>AR</i> 4 dr. ca. 333. Zeus/Thunderbolt	195
15. " <i>A</i> st. ca. 303. Hera/Dioscuri	196
16. Massalia, <i>AR</i> ob. ca. 400. Head/Wheel	196
17. " <i>AR</i> dr. ca. 350. Head/Lion	80, 196
18. Rhode, <i>AR</i> dr. ca. 350. Head/Rose	197

7, 16 Cambridge; 5 Naples; 8 Paris; 3, 4, 6, 15 Lloyd.

PLATE XLVI

1. Amyntas III, <i>AR</i> st. ca. 380. Heracles/Horse	198
2. Olynthus, <i>AR</i> 4 ob. ca. 420. Apollo/Lyre	198
3. " <i>AR</i> 4 dr. ca. 400. Apollo/Lyre	199
4. " <i>AR</i> 4 dr. ca. 360. Apollo/Lyre	199
5. " <i>A</i> st. ca. 380. Apollo/Lyre	199
6. Crenides, <i>A</i> st. ca. 359. Heracles/Tripod	200
7. Philippi, <i>A</i> st. ca. 356. Heracles/Tripod	200
8. Philip II, <i>A</i> $\frac{1}{2}$ st. ca. 356. Heracles/Half-lion	200
9. " <i>A</i> $\frac{1}{4}$ st. ca. 356. Heracles/Bow, club	200

		PAGE
10.	Philip II, \mathcal{A} 4 dr. ca. 359. Zeus/Horseman	199
11.	„ \mathcal{A} 4 dr. ca. 356. Zeus/Jockey	200
12.	„ \mathcal{A} 4 dr. ca. 356. Zeus/Jockey	200
13.	„ \mathcal{A} 2 dr. ca. 356. Heracles/Jockey	200
14.	„ \mathcal{A} 4 ob. ca. 356. Ares/Jockey	200
15.	Delphi, \mathcal{A} 2 dr. 335. Demeter/Apollo	203

2 Berlin; 8, 9, 14 Cambridge; 6 Paris; 4 de Nanteuil; 1, 10, 11 Seltman.

PLATE XLVII

1.	Olynthus, \mathcal{A} st. ca. 349. Apollo/Lyre	199
2.	Philip II, \mathcal{A} st. ca. 348. Apollo/Chariot	201
3.	„ \mathcal{A} st. ca. 340. Apollo/Chariot	201
4.	„ \mathcal{A} st. ca. 340. Apollo/Chariot	201
5.	Syracuse, \mathcal{A} $\frac{1}{2}$ st. ca. 310. Apollo/Chariot	201
6.	Aedui(?) \mathcal{A} st. ca. 110. Apollo/Chariot	201
7.	Normandy, \mathcal{A} st. ca. 100. Apollo/Chariot	202
8.	Belgae, \mathcal{A} st. ca. 75. Apollo/Chariot	202
9.	S.W. England, \mathcal{A} st. ca. 50. Apollo/Chariot	202
10.	Yorkshire, \mathcal{A} st. ca. 30. Apollo/Chariot	202

5 Lloyd; 4 Seltman.

PLATE XLVIII

1.	Alexander, Amphipolis, \mathcal{A} 2 st. 336. Athena/Nike	204, 207
2.	„ Amphipolis, \mathcal{A} st. 336. Athena/Nike	204, 207
3.	„ Amphipolis, \mathcal{A} 4 dr. 336. Heracles/Zeus	205, 207
4.	„ Amphipolis, \mathcal{A} 4 dr. 324. Heracles/Zeus	207, 212
5.	„ Pella, \mathcal{A} 4 dr. 324. Heracles/Zeus	207
6.	„ Miletus, \mathcal{A} 4 dr. 328. Heracles/Zeus	208
7.	Mazaeus, Tarsus, \mathcal{A} st. 333. Baal/Lion on stag	185, 208
8.	Alexander, Tarsus, \mathcal{A} 4 dr. 333. Heracles/Zeus	208
9.	„ Sidon, \mathcal{A} st. 331. Athena/Nike	210
10.	Mazaeus, Myriandros, \mathcal{A} st. 333. Baal/Lion	209
11.	Alexander, Myriandros, \mathcal{A} 4 dr. 333. Heracles/Zeus	209
12.	„ Damascus, \mathcal{A} 4 dr. 326. Heracles/Zeus	209
13.	„ Sidon, \mathcal{A} 4 dr. 330. Heracles/Zeus	210

2 to 5, 12 Seltman.

PLATE XLIX

1.	Mazaeus, Babylon, \mathcal{A} 4 dr. ca. 330. Baal/Lion	211
2.	Alexander, Babylon, \mathcal{A} 4 dr. ca. 325. Heracles/Zeus (Star)	211
3.	„ Babylon, \mathcal{A} 4 dr. 323. Heracles/Zeus (Nike)	211, 214
4.	„ Babylon, \mathcal{A} 4 dr. ca. 324. Heracles/Zeus (Grapes)	211
5.	„ Babylon, \mathcal{A} 10 dr. ca. 324. Heracles/Zeus	213

	PAGE
6. Alexander, Babylon, \mathcal{A} 10 dr. 323. Porus/Alexander	213
7. „ Babylon, \mathcal{A} 10 dr. 323. Porus/Alexander	213
8. „ Alexandria, \mathcal{A} 4 dr. ca. 326. Heracles/Zeus (Rose)	212
9. Lysimachus, \mathcal{A} 4 dr. ca. 300. Alexander/Athena	214, 221, 238
3, 5, Berlin; 2, 4, 8, 9 Seltman.	

PLATE LI

1. Posthumous Philip, \mathcal{A} 4 dr. ca. 300. Zeus/Horseman	219
2. Imitation of Philip, \mathcal{A} 4 dr. ca. 250. Zeus/Horseman	219
3. Cassander, \mathcal{A} ca. 300. Heracles/Horseman	219
4. Demetrius, \mathcal{A} 4 dr. ca. 300. Nike/Poseidon	222
5. „ \mathcal{A} 4 dr. ca. 290. Head/Poseidon	222
6. „ \mathcal{A} st. ca. 290. Head/Horseman	222
7. „ \mathcal{A} st. ca. 294. Athena/Nike	222
8. Antigonos, \mathcal{A} 4 dr. ca. 275. Pan/Athena	223, 260
9. „ \mathcal{A} 4 dr. ca. 258. Poseidon/Apollo	224
10. „ \mathcal{A} st. ca. 250. Athena/Nike	224
11. „ \mathcal{A} 4 dr. ca. 250. Heracles/Zeus	224
12. Flamininus, \mathcal{A} st. ca. 196. Head/Nike	225

12 Berlin; 3 Cambridge; 2 Dessewffy; 6, 9 Locker-Lampson; 8 Newell.

PLATE LI

1. Philip V, \mathcal{A} 4 dr. ca. 200. Head/Athena	225
2. „ \mathcal{A} 4 dr. ca. 180. Head/Club	225
3. Perseus, \mathcal{A} 4 dr. ca. 175. Head/Eagle	226
4. Macedonia, \mathcal{A} 4 dr. ca. 158. Artemis/Club	226
5. „ \mathcal{A} 4 dr. ca. 158. Artemis/Club	226
6. Philip VI, \mathcal{A} 4 dr. ca. 149. Head/Club	226
7. Thasos, \mathcal{A} 4 dr. ca. 140. Dionysus/Heracles	227
8. Maroneia, \mathcal{A} 4 dr. ca. 140. Dionysus/Dionysus	227

5 Brussels; 6 Locker-Lampson.

PLATE LII

1. Seleucus I, \mathcal{A} 4 dr. ca. 312. Heracles/Zeus	227
2. „ \mathcal{A} 4 dr. ca. 300. Horse/Elephant	228
3. „ \mathcal{A} 4 dr. ca. 290. Head/Nike	228
4. Antiochus I, \mathcal{A} 4 dr. ca. 290. Head/Horse	228
5. Seleucus I, \mathcal{A} st. ca. 290. Head/Horse	228
6. „ \mathcal{A} 4 dr. ca. 290. Zeus/Elephants	229
7. Antiochus I, \mathcal{A} 4 dr. ca. 280. Head/Apollo	229
8. Antiochus II, \mathcal{A} 4 dr. ca. 260. Head/Apollo	229
9. „ \mathcal{A} 4 dr. ca. 260. Head/Heracles	229, 234

2 Berlin; 4 Glasgow.

¹ From this point onward "Head" denotes "Portrait head."

PLATE LIII

	PAGE
1. Antiochus III, \mathcal{A} 4 dr. ca. 220. Head/Apollo	230
2. Antiochus I, \mathcal{A} st. ca. 265. Head/Apollo	229
3. Antiochus III, \mathcal{A} 4 dr. ca. 206. Head/Elephant	230
4. Antiochus IV, \mathcal{A} 4 dr. ca. 172. Head/Apollo	230
5. Antiochus Infans, \mathcal{A} 4 dr. ca. 172. Head/Apollo	230
6. Antiochus IV, \mathcal{A} 4 dr. ca. 169. Head/Zeus	231
7. " \mathcal{A} 4 dr. 167. Zeus/Zeus	231
8. " \mathcal{A} 167. Zeus/Eagle	22, 231, 244
9. " \mathcal{A} 4 dr. 167. Apollo/Apollo	231

9 Paris; 2 Locker-Lampson.

PLATE LIV

1. Demetrius I, \mathcal{A} 4 dr. ca. 160. Head/Tyche	232
2. Balas, \mathcal{A} 4 dr. ca. 150. Head/Eagle	232
3. Antiochus VI, \mathcal{A} 4 dr. ca. 143. Head/Dioscuri	232
4. Tryphon, \mathcal{A} 4 dr. ca. 142. Head/Helmet	232
5. Cleopatra and Antiochus VIII, \mathcal{A} 4 dr. ca. 121. Heads/Zeus	233
6. Tigranes, \mathcal{A} 4 dr. ca. 80. Head/Tyche	233
7. Antiochus XIII, \mathcal{A} 4 dr. ca. 65. Head/Zeus	233
8. Antiochus II, Bactria, \mathcal{A} 4 dr. ca. 255. Head/Zeus	229, 234
9. Diodotus, \mathcal{A} 4 dr. ca. 250. Head/Zeus	234

1, 5 Glasgow; 7 Newell.

PLATE LV

1. Demetrius, \mathcal{A} 4 dr. ca. 190. Head/Heracles	234
2. Euthydemus, \mathcal{A} 4 dr. ca. 215. Head/Heracles	234
3. Antimachus, \mathcal{A} 4 dr. ca. 190. Head/Poseidon	234
4. Eucratides, \mathcal{A} 4 dr. ca. 160. Head/Dioscuri	235
5. " \mathcal{A} 20 st. ca. 160. Head/Dioscuri	235
6. Sophytes, \mathcal{A} dr. ca. 280. Head/Cock	228, 229

6 Oxford; 5 Paris.

PLATE LVI

1. Eucratides, \mathcal{A} dr. ca. 160. Head/Dioscuri	235
2. " \mathcal{A} ca. 160. Head/Dioscuri	235
3. Demetrius, \mathcal{A} 4 dr. ca. 180. Head/Zeus	235
4. " \mathcal{A} ca. 160. Head/Thunderbolt	235
5. Tiridates I, \mathcal{A} dr. ca. 240. Head/Archer	236
6. Mithradates I, \mathcal{A} 4 dr. ca. 160. Head/Heracles	236

	PAGE
7. Orodes II, \mathcal{R} 4 dr. ca. 53. Head/King	236
8. Mithradates III, \mathcal{R} 4 dr. ca. 200. Head/Zeus	237
9. Pharnaces I, \mathcal{R} 4 dr. ca. 175. Head/Deity	237
10. Mithradates IV, \mathcal{R} 4 dr. ca. 150. Head/Perseus	237

9 Paris; 10 Jameson.

PLATE LVII

1. Mithradates IV, \mathcal{R} 4 dr. ca. 150. Heads/Zeus and Hera	237
2. Mithradates VI, \mathcal{A} st. ca. 100. Head/Stag	238
3. " \mathcal{R} 4 dr. ca. 100. Head/Pegasus	238
4. Prusias II, \mathcal{R} 4 dr. ca. 150. Head/Zeus	238
5. Philetaerus, \mathcal{R} 4 dr. ca. 280. Head/Athena	238
6. Eumenes I, \mathcal{R} 4 dr. ca. 260. Head/Athena	238
7. Cistophorus, \mathcal{R} 4 dr. ca. 200. Serpents/Cista	239
8. Alexander-type, \mathcal{R} 4 dr. ca. 150. Heracles/Zeus	218, 239
9. Cicero Proconsul, \mathcal{R} 4 dr. 51. Serpents/Cista	239

9 Berlin; 1, 4 Paris; 3 Jameson.

PLATE LVIII

1. Ptolemy I, \mathcal{R} 4 dr. ca. 316. Alexander/Zeus	240
2. " \mathcal{R} 4 dr. ca. 305. Alexander/Athena	219, 223, 240
3. " \mathcal{R} 4 dr. ca. 305. Alexander/Athena	240
4. " \mathcal{R} 4 dr. ca. 300. Head/Eagle	241
5. " \mathcal{A} st. ca. 300. Head/Elephants	241
6. Arsinoe II, \mathcal{A} 8 dr. ca. 270. Head/Cornucopiae	242
7. Ptolemy II, \mathcal{A} 8 dr. ca. 250. Heads/Heads	241
8. Berenice II, \mathcal{A} 8 dr. ca. 258. Head/Cornucopiae	242
9. " \mathcal{A} 10 dr. ca. 240. Head/Cornucopiae	243
10. Ptolemy III, \mathcal{A} 8 dr. ca. 240. Head/Cornucopiae	243

9 Burrage; 3 Newell.

PLATE LIX

1. Ptolemy IV, \mathcal{R} 4 dr. ca. 210. Sarapis and Isis/Eagle	243
2. " \mathcal{A} 8 dr. ca. 210. Head/Eagle	243
3. Arsinoe III, \mathcal{A} 8 dr. ca. 210. Head/Cornucopiae	243
4. Ptolemy IV, \mathcal{R} 2 dr. ca. 210. Head/Eagle	243
5. Ptolemy VI, \mathcal{A} ca. 160. Zeus/Eagle	22, 231, 244
6. Ptolemy XIII, \mathcal{R} 4 dr. ca. 60. Head/Eagle	244
7. Cleopatra, \mathcal{R} dr. 47. Head/Eagle	245
8. " \mathcal{R} 4 dr. 30. Head/Eagle	244

5 Seltman.

PLATE LX

	PAGE
1. Agathocles, \mathcal{A} st. ca. 315. Athena/Pegasus	245
2. " \mathcal{A} dr. ca. 315. Apollo/Chariot	245
3. " \mathcal{A} 4 dr. ca. 305. Kore/Nike	246
4. " \mathcal{A} st. ca. 300. Athena/Thunderbolt	246
5. " \mathcal{A} st. ca. 310. Africa/Athena-Nike	223, 246
6. Carthaginians, \mathcal{A} 4 dr. ca. 315. Heracles/Horse	246
7. Tarentum, \mathcal{A} 2 dr. ca. 280. Horseman/Phalanthus	247
8. " \mathcal{A} st. ca. 280. Zeus/Eagle	247
9. Pyrrhus, \mathcal{A} st. ca. 278. Athena/Nike	247
10. " \mathcal{A} dr. ca. 278. Artemis/Nike	247
11. Hieron II, \mathcal{A} 8 dr. ca. 258. Head/Chariot	248
12. Pyrrhus, \mathcal{A} 2 dr. ca. 278. Kore/Athena	223, 247
13. Hieron II, \mathcal{A} dr. ca. 270. Athena/Pegasus	248
14. Philistis, \mathcal{A} 4 dr. ca. 250. Head/Chariot	248
15. Gelon II, \mathcal{A} 2 dr. ca. 250. Head/Chariot	248
16. Hieronymus, \mathcal{A} 6 dr. ca. 216. Head/Thunderbolt	249

5 Vienna; 15 Locker-Lampson.

PLATE LXI

1. Syracuse, \mathcal{A} 3 dr. ca. 214. Athena/Artemis	249, 251
2. Carthage, \mathcal{A} 4 dr. ca. 240. Tanit/Horse	249
3. " EL 3 dr. ca. 240. Tanit/Horse	250
4. Tarentum, \mathcal{A} st. ca. 210. Heracles/Chariot	251
5. Capua, EL dr. ca. 212. Janus/Chariot	250
6. Carthage, \mathcal{A} 12 dr. ca. 240. Tanit/Horse	250
7. Carthaginians, \mathcal{A} dr. ca. 212. Tanit/Horse	250
8. Rome, \mathcal{A} 2 dr. ca. 250. Janus/Chariot	250
9. Bruttians, \mathcal{A} dr. ca. 210. Hera/Poseidon	251
10. " \mathcal{A} dr. ca. 210. Poseidon/Thetis	251
11. " \mathcal{A} st. ca. 210. Dioscuri/Dioscuri	251
12. Rome, \mathcal{A} denarius, ca. 187. "Roma"/Dioscuri	251
13. Rhodes, \mathcal{A} 2 dr. ca. 300. Helios/Rose	252
14. " \mathcal{A} 4 dr. ca. 250. Helios/Rose	253
15. " \mathcal{A} st. ca. 180. Helios/Rose	253

5, 13 Seltman.

PLATE LXII

1. Rhodes, \mathcal{A} dr. ca. 30. Dionysus/Nike on prow	254
2. " \mathcal{A} dr. ca. 80. Helios/Rose	254
3. Aetolia, \mathcal{A} st. ca. 275. Athena/Aetolia	254
4. " \mathcal{A} 4 dr. ca. 275. Heracles/Aetolia	255
5. " \mathcal{A} 4 dr. ca. 275. Heroic head/Hero	255
6. Areus, \mathcal{A} 4 dr. ca. 280. Heracles/Zeus	256

	PAGE
7. Cleomenes III, \mathcal{A} 4 dr. ca. 228. Head/Apollo	257
8. Nabis, \mathcal{A} 4 dr. ca. 200. Head/Heracles	257
9. Achaean League, \mathcal{A} 3 ob. ca. 250. Zeus/Wreath, Wolf (Argos)	256
10. " " \mathcal{A} 3 ob. ca. 250. Zeus/Wreath, Pegasus (Corinth)	256
11. " " \mathcal{A} ca. 250. Zeus/Achaia (Argos)	256
12. Athens, \mathcal{A} st. 296. Athena/Owl	258
13. " \mathcal{A} 4 dr. ca. 300. Athena/Owl	259
14. " \mathcal{A} 4 dr. ca. 290. Athena/Owl	259

6 Athens; 13 Paris; 2, 12 Locker-Lampson; 14 Seltman.

PLATE LXIII

1. Athens, \mathcal{A} 4 dr. ca. 250. Athena/Owl	260
2. " \mathcal{A} 4 dr. ca. 220. Athena/Owl	261
3. " \mathcal{A} 4 dr. ca. 190. Athena/Owl	261
4. " \mathcal{A} dr. ca. 250. Athena/Owl	260
5. Cnossus, \mathcal{A} 4 dr. ca. 200. Athena/Owl	261
6. Arabia, \mathcal{A} 4 dr. ca. 100. Head/Owl	262
7. Athens, \mathcal{A} 4 dr. 176. Athena/Owl	262
8. " \mathcal{A} 4 dr. ca. 100. Athena/Owl	263
9. " \mathcal{A} 4 dr. 87. Athena/Owl	263
10. " \mathcal{A} st. 87. Athena/Owl	263
11. " \mathcal{A} dr. ca. 25. Athena/Owl	264
12. Sulla, \mathcal{A} 4 dr. 85. Athena/Owl	263

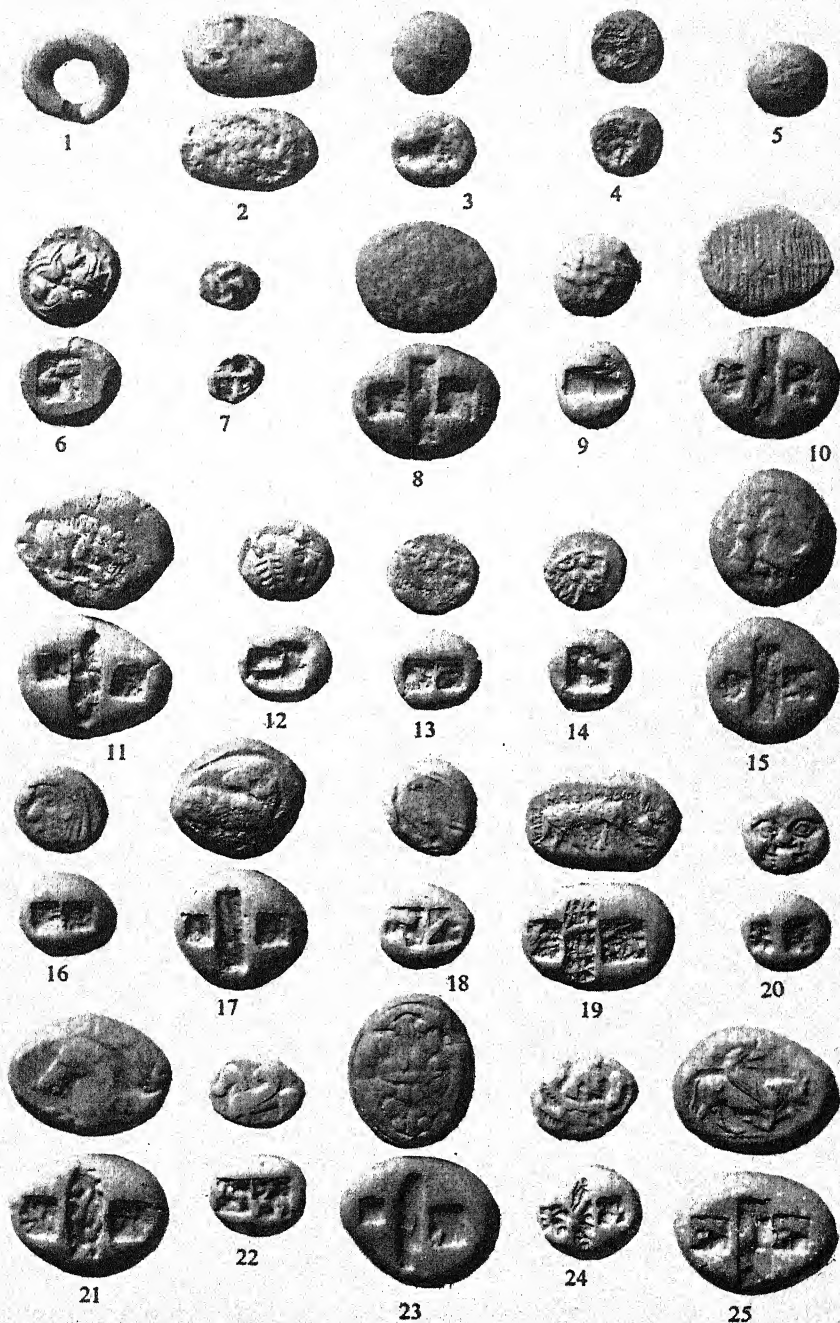
11 Berlin; 1, 4 Paris; 3 Commerce.

PLATE LXIV

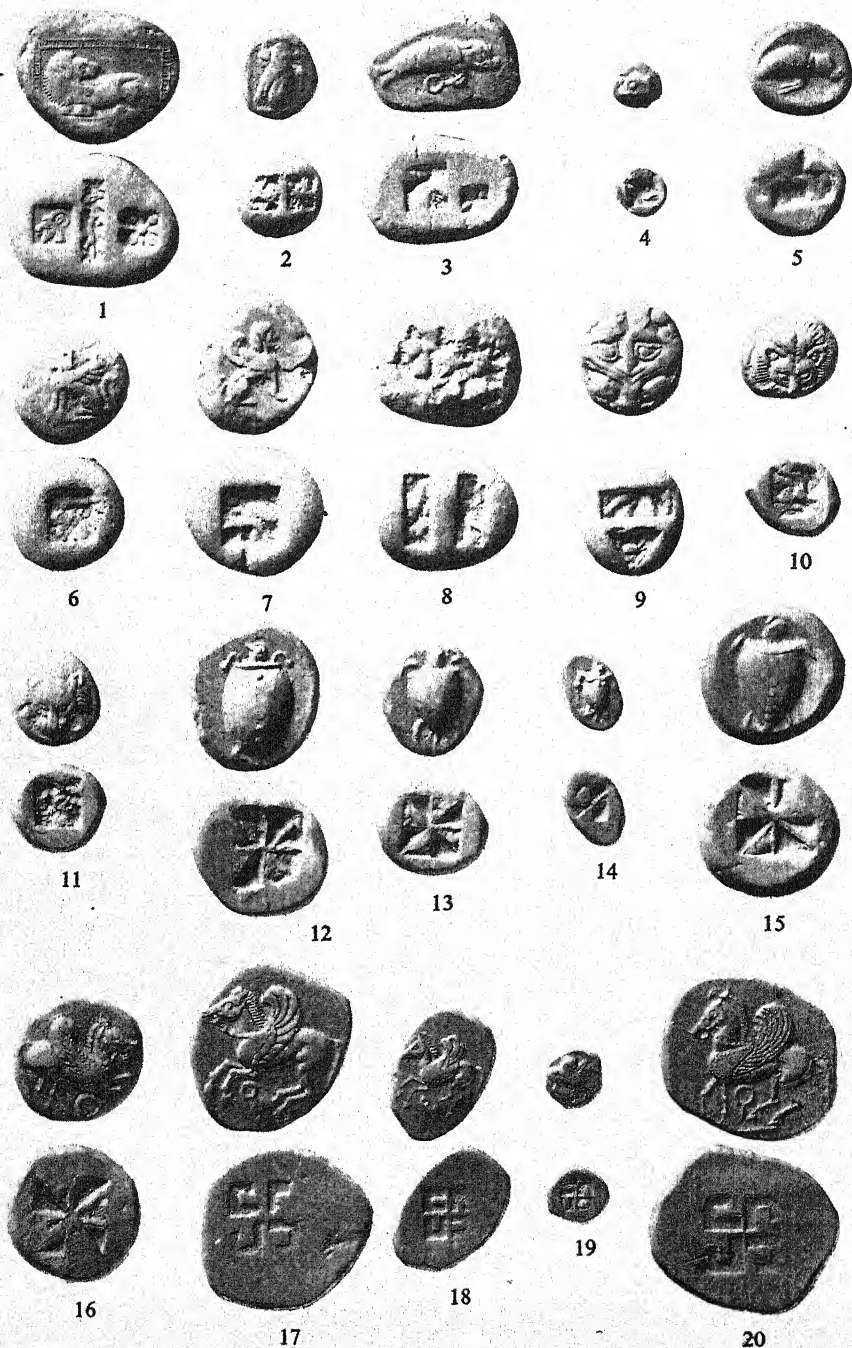
Obverses of Greek coins enlarged two diameters.

1. Athens, \mathcal{A} 4 dr. ca. 500. Compare Pl. V, 11	59
2. Aenus, \mathcal{A} 4 dr. ca. 460. Compare Pl. XXIX, 8	145, 266
3. Naxos, \mathcal{A} 4 dr. ca. 460. Compare Pl. XXV, 9	133, 266
4. Troezen, \mathcal{A} dr. ca. 450. Compare Pl. XVI, 8	111, 266
5. Panticapaeum, \mathcal{A} st. ca. 360. Compare Pl. XXXIX, 11	180
6. Olympia, \mathcal{A} 2 dr. ca. 420. Compare Pl. XXXV, 4	164, 266

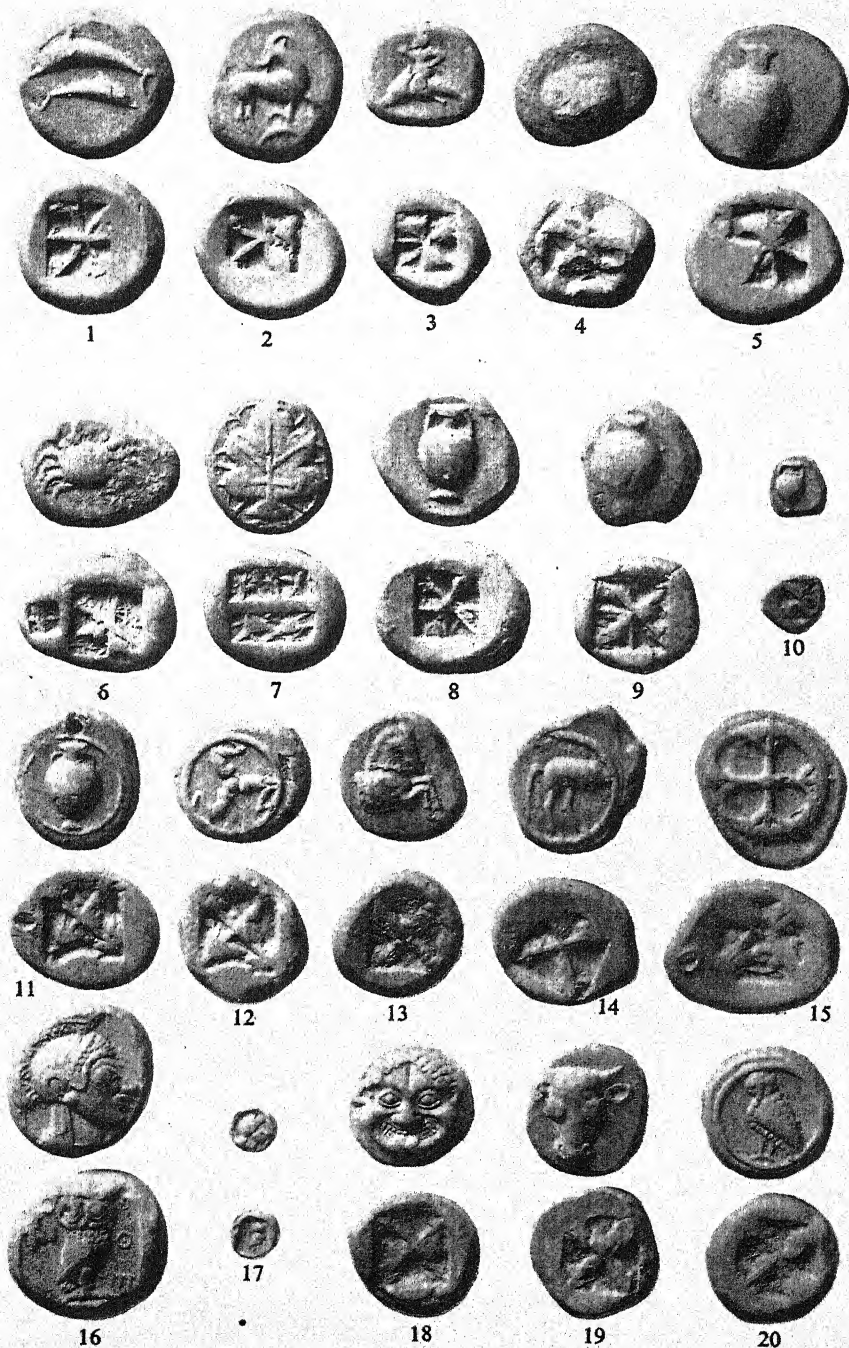
1, 2, 6 Berlin; 4 Seltman.



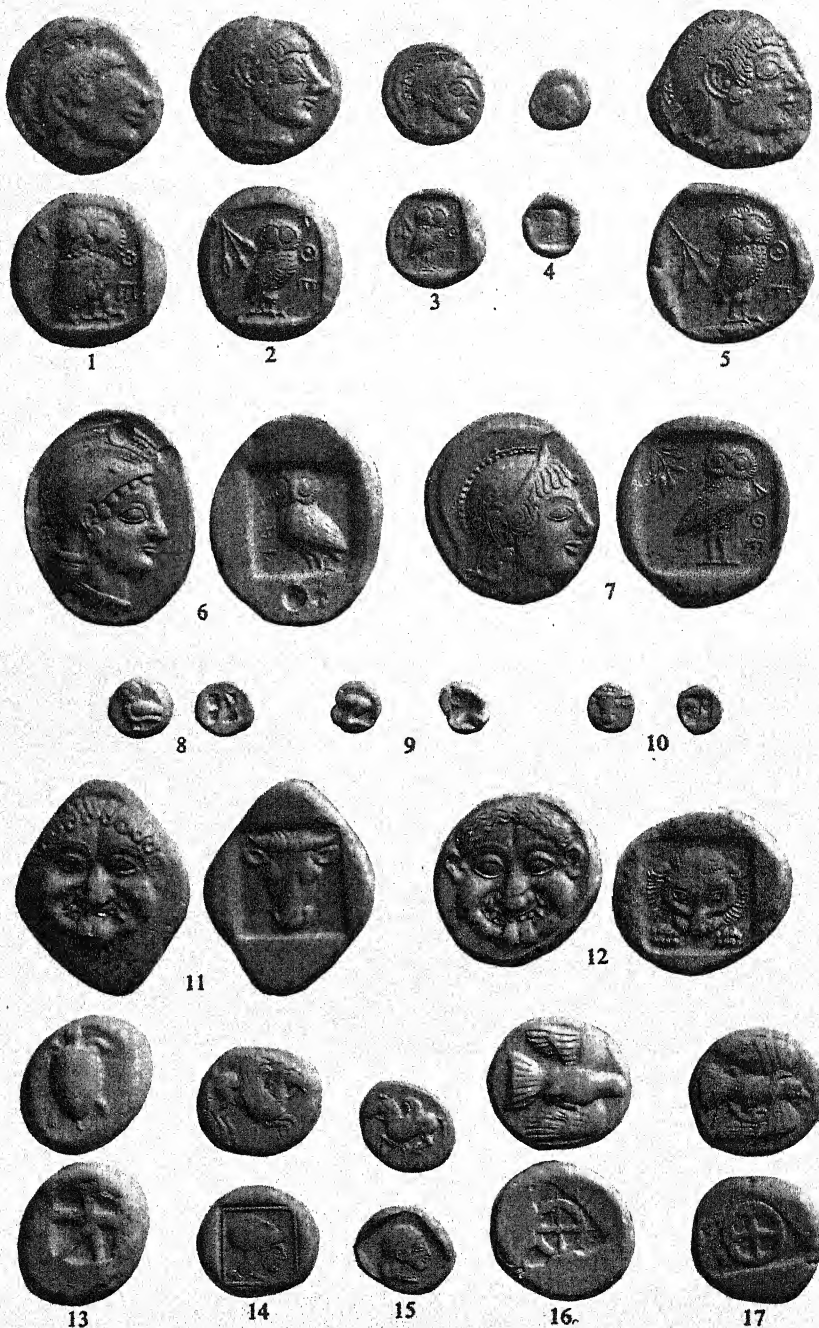
EARLY METALLIC CURRENCY (1-10); LYDIA (11-14); IONIA (15-25)



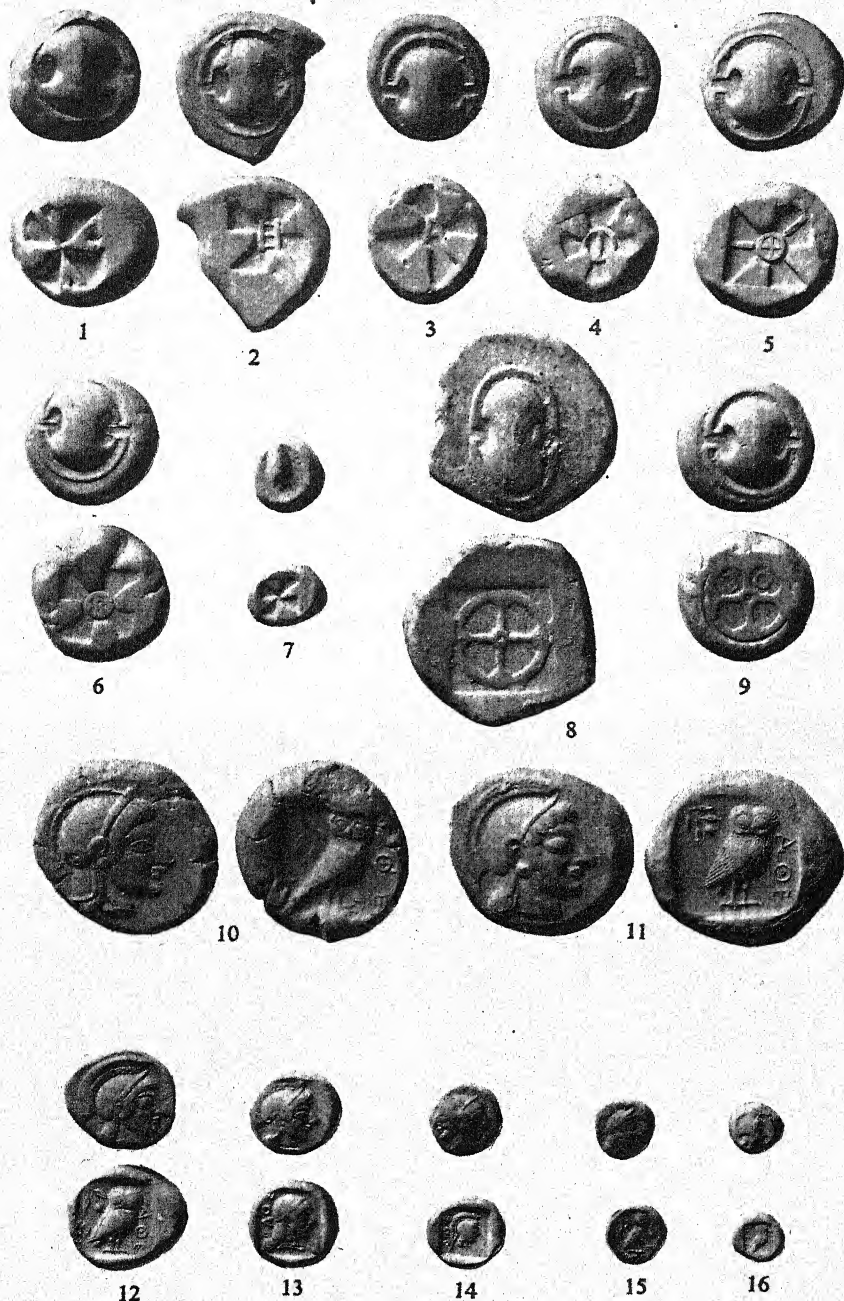
IONIA (1-11); AEGINA (12-15); CORINTH (16-20)



MEGARA (1-3); ISLANDS (4-7); ATHENS (8-20)

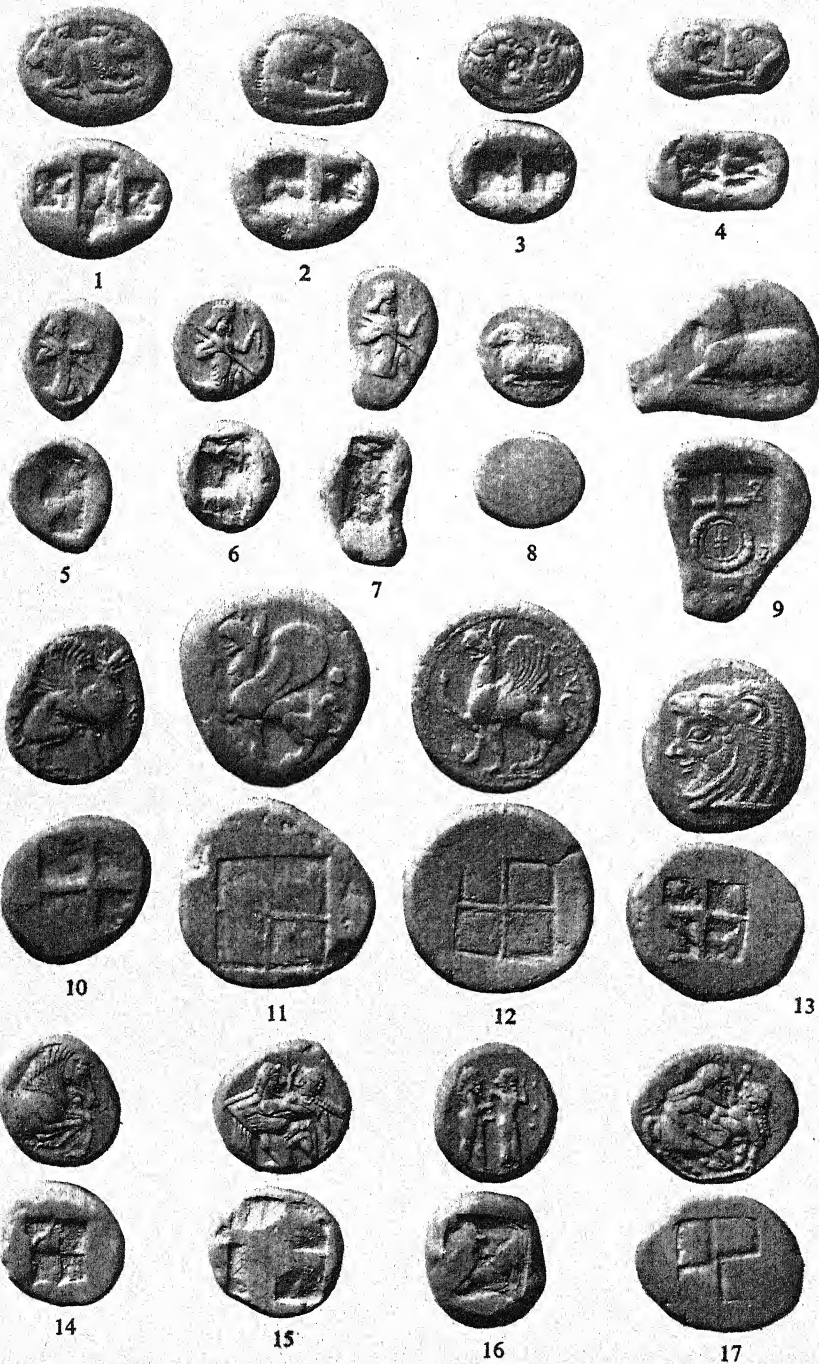


ATHENIAN ISSUES (1-12); AEGINA (13); CORINTH (14, 15);
CHALCIS (16, 17)



BOEOTIA (1-7, 9); CHALCIS (8); ATHENS (10-16)

PLATE VI

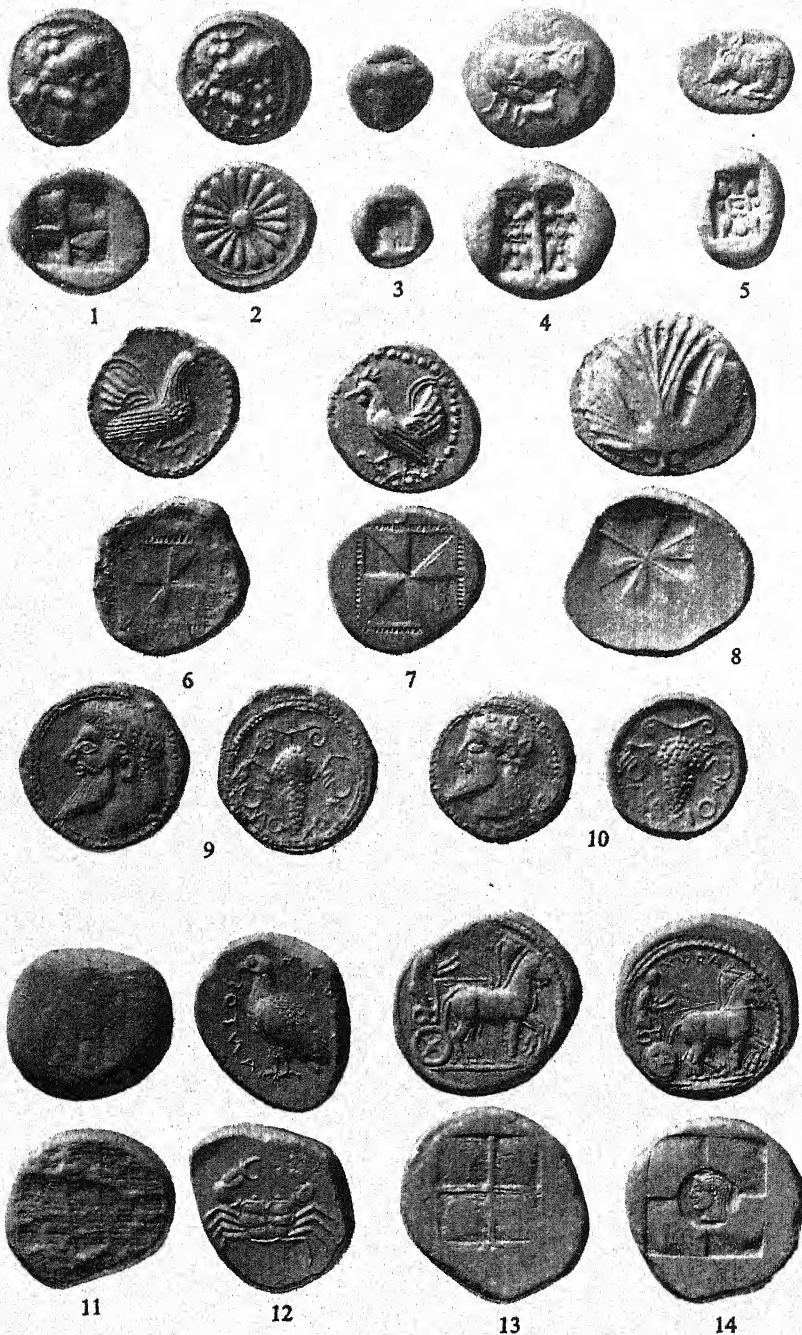


CROESUS (1-4); PERSIA (5-7); CYPRUS (8, 9); THRACE (10-17)

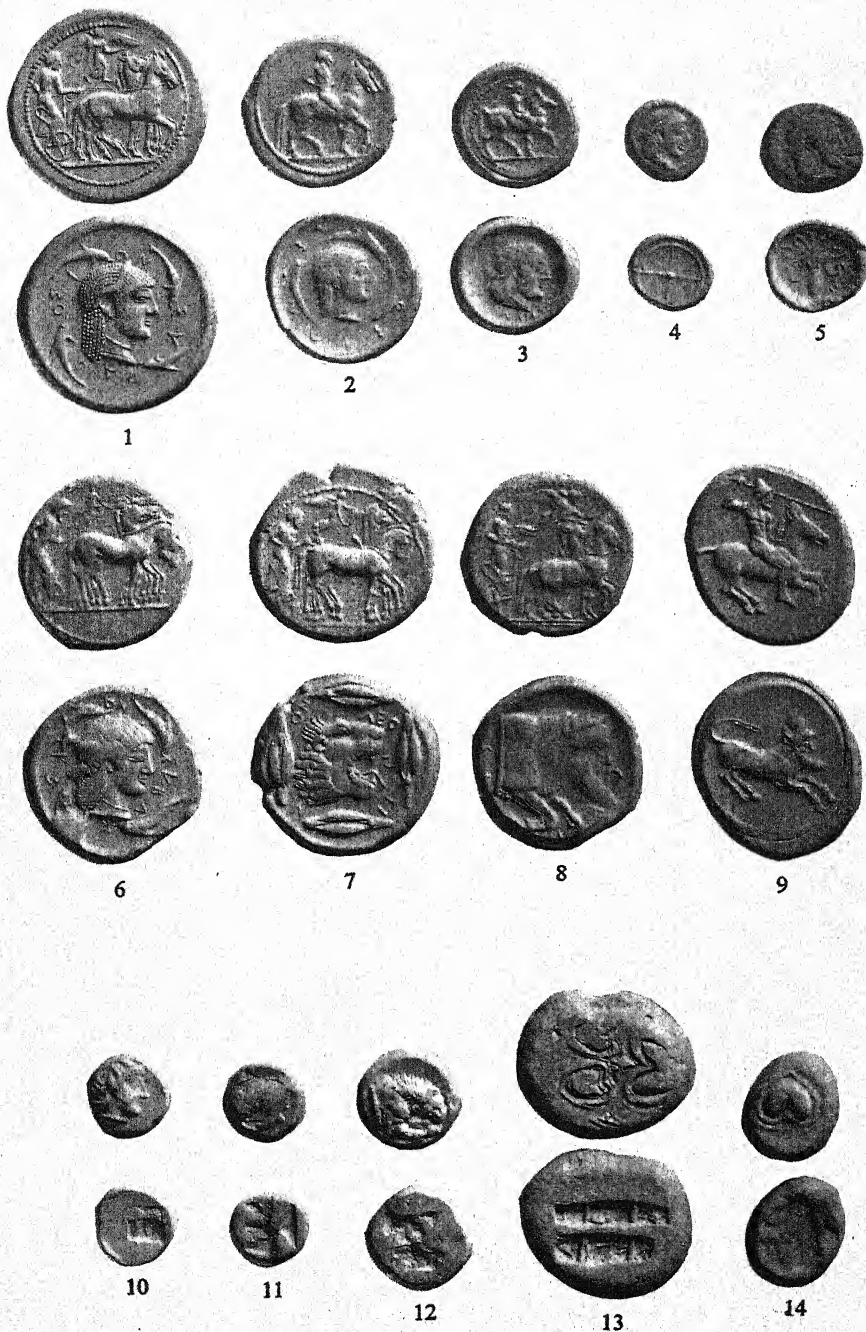


THRACE (1-3); CHALCIDICE (4-7); ACANTHUS (8, 9)

PLATE VIII



MACEDON (1, 2); CORCYRA (3-5); SICILY (6-14)

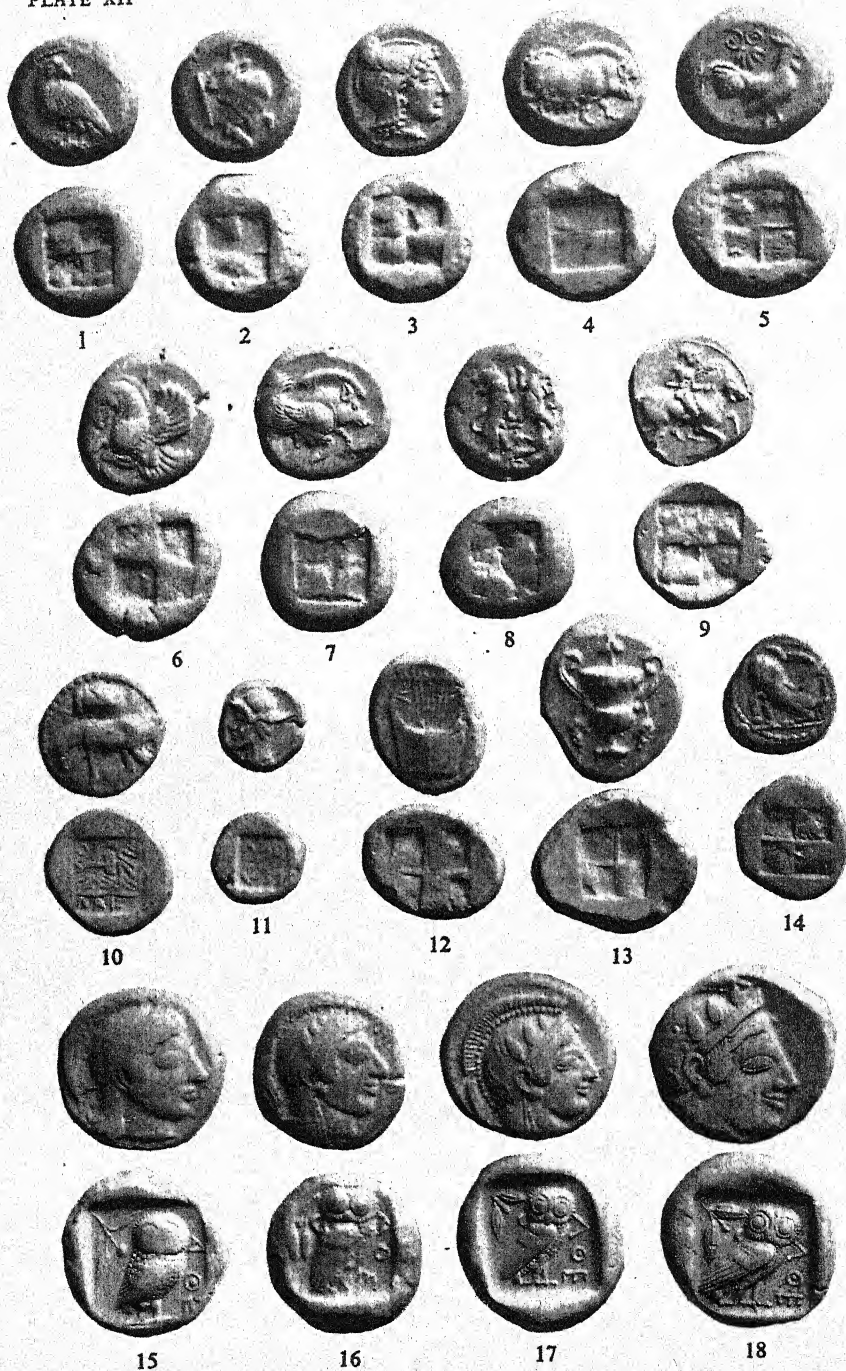


SICILY (1-9); MASSALIA (10, 11); VELIA (12); CYRENE (13, 14)





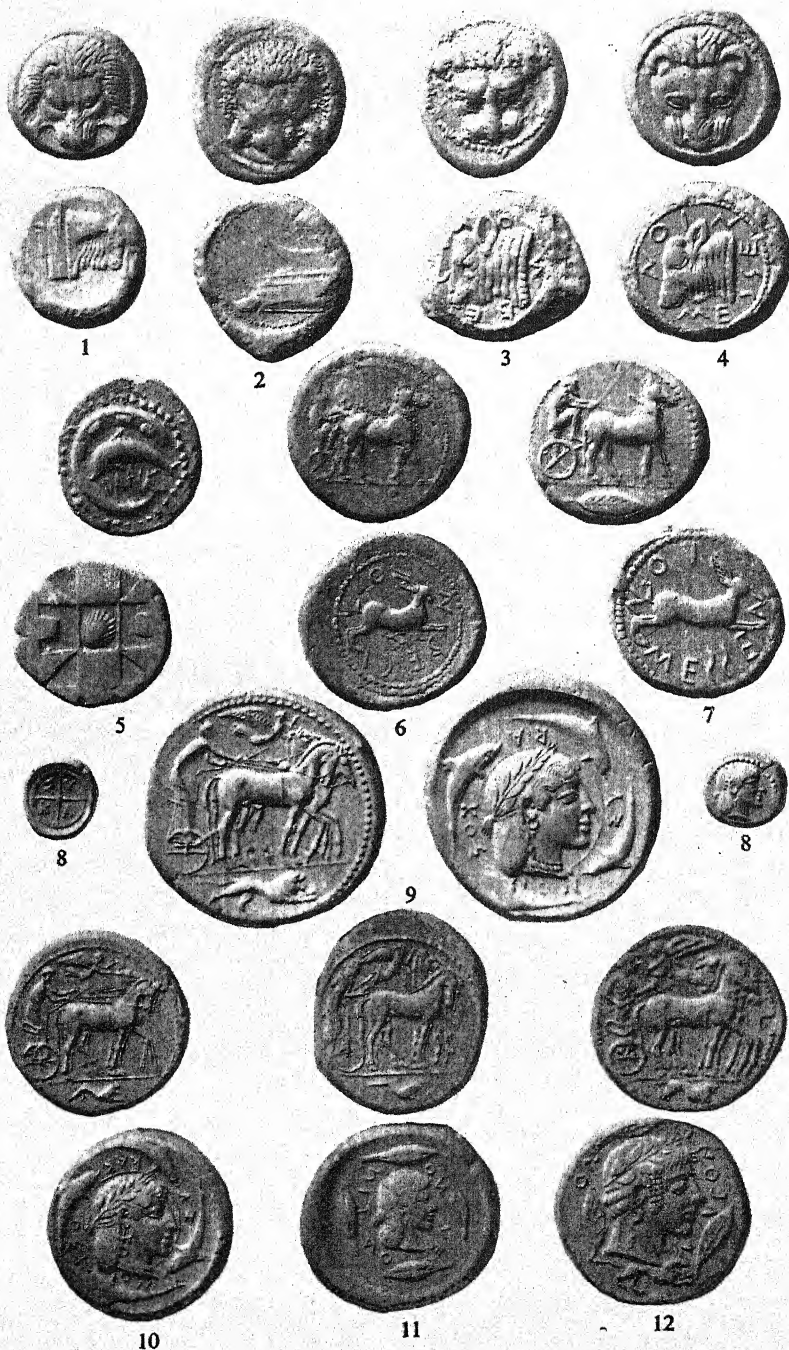
EUBOEIA (1, 2, 4); DICAIA (3); CHERSONESE (5-13)



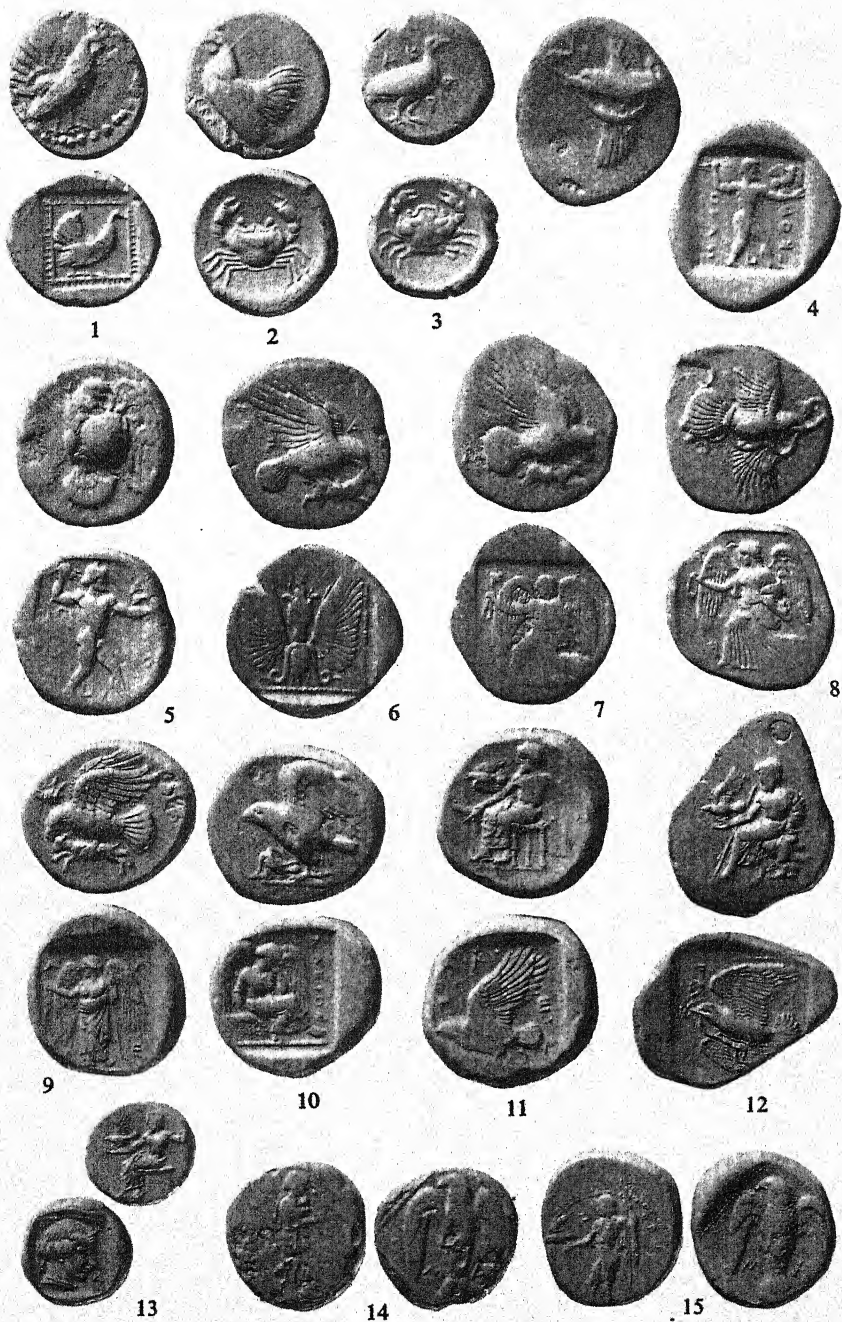
IONIAN REVOLT (1-9); LARISA (10, 11); ISLANDS (12-14);
ATHENS (15-18)



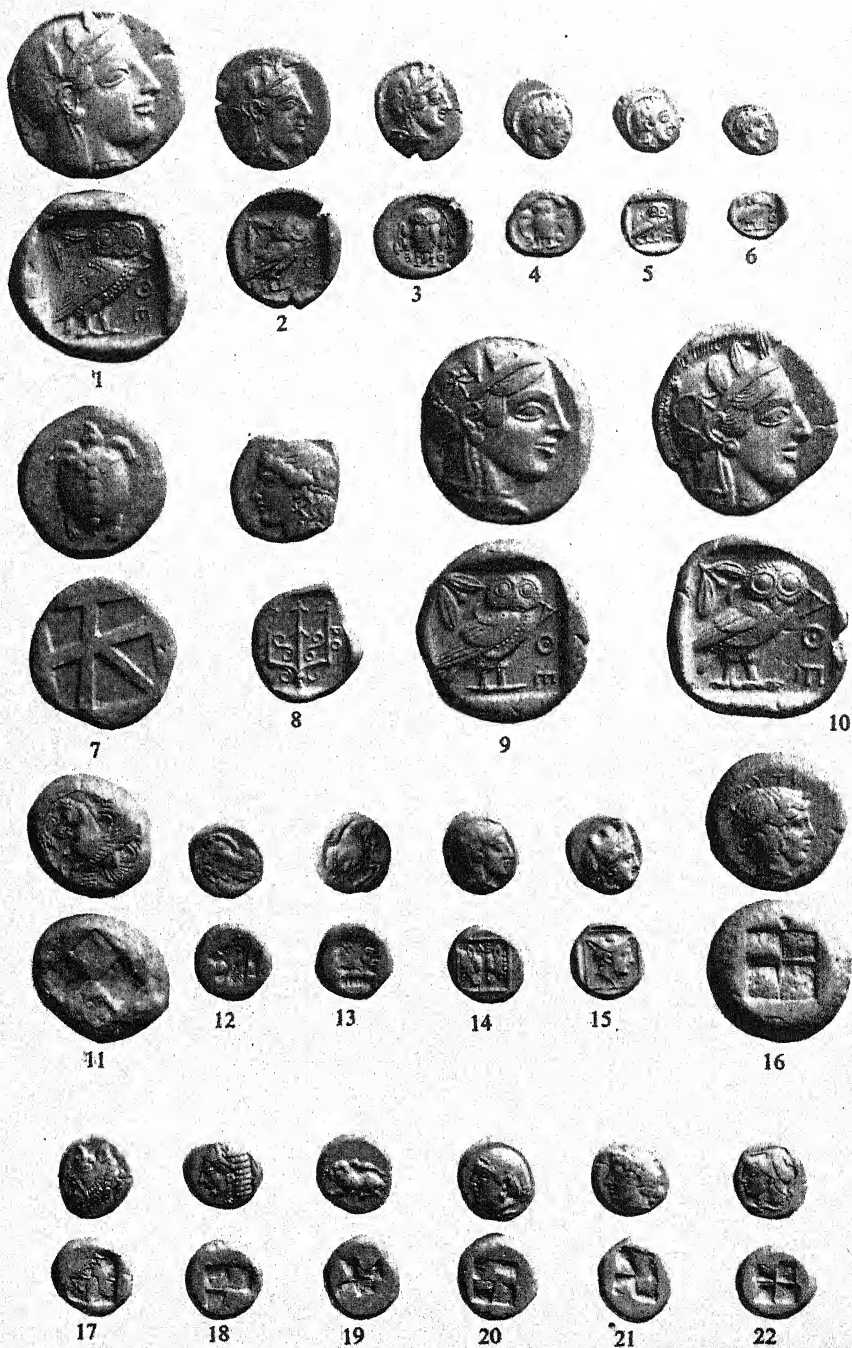
ATHENS (1, 2); THEBES (3); PELOPONNESE (4-8, 13);
OLYMPIA (9-12); DELPHI (14, 15)



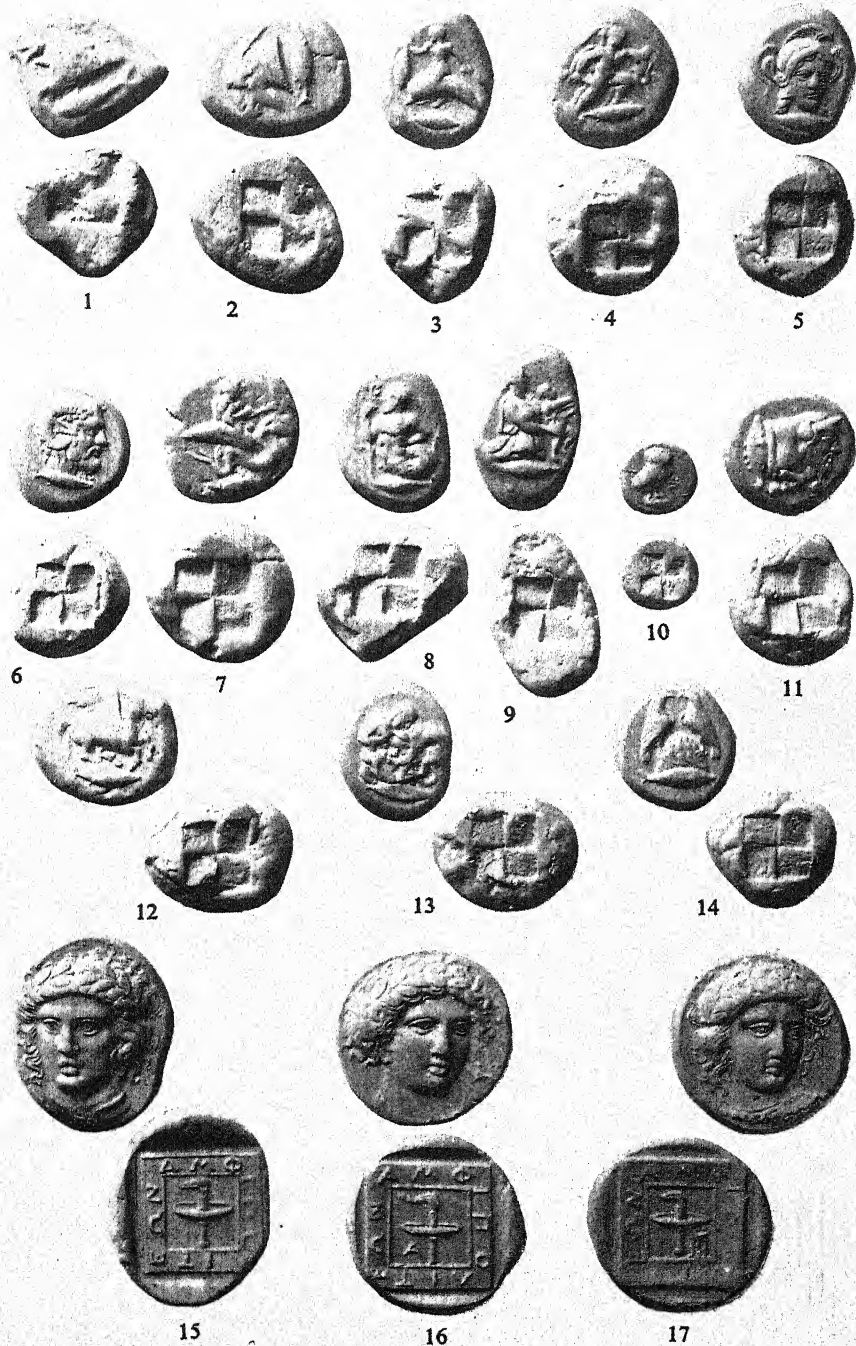
SAMOS, RHEGIUM, MESSANA (1-7); SICILY, VICTORY ISSUES (8-12)



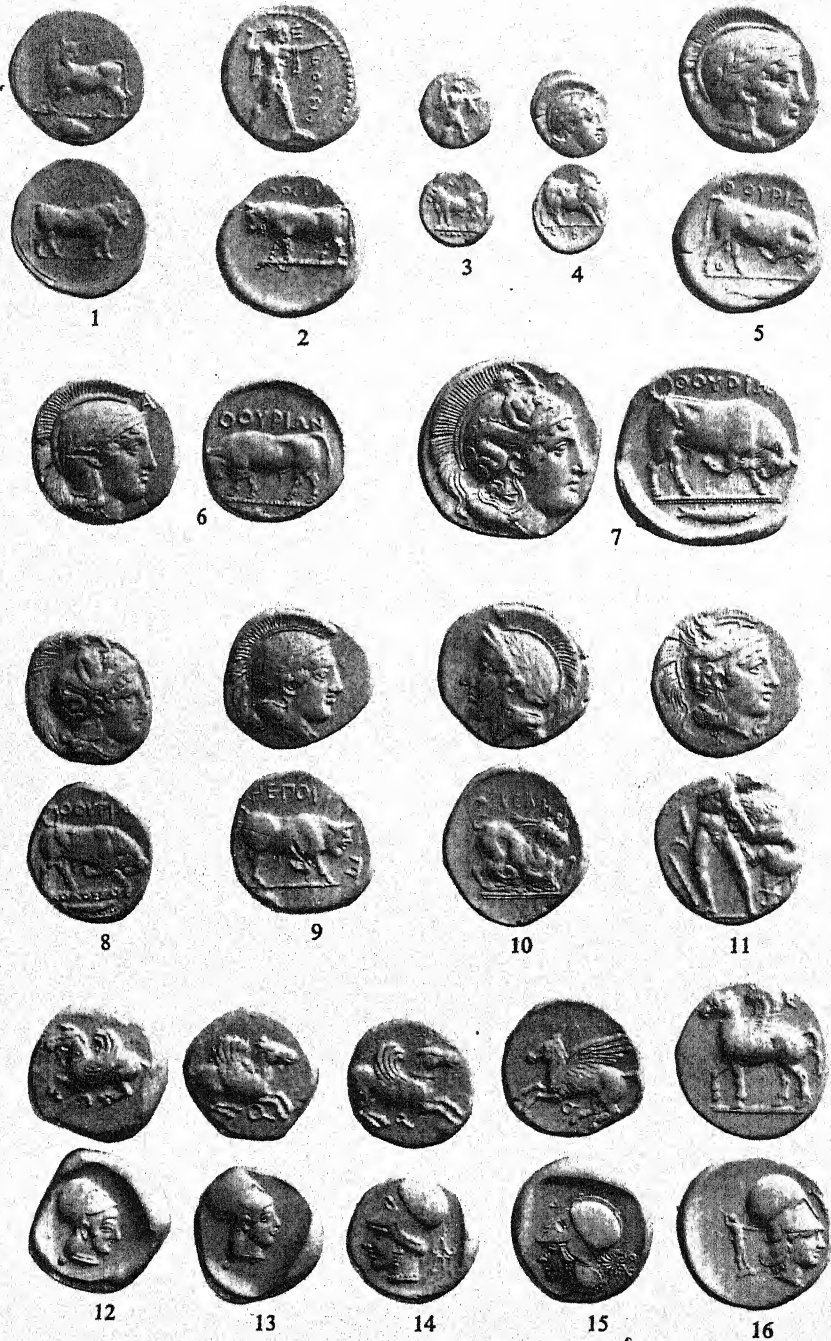
HIMERA AND ACRAGAS (1-3); OLYMPIA (4-12); HERAEA (13);
THEMISTOCLES (14, 15)



ATHENS (1-6, 9, 10); AEGINA (7); TROEZEN (8); LAMPSACUS (11);
LESBOS (12-16); PHOCAEA (17-22)

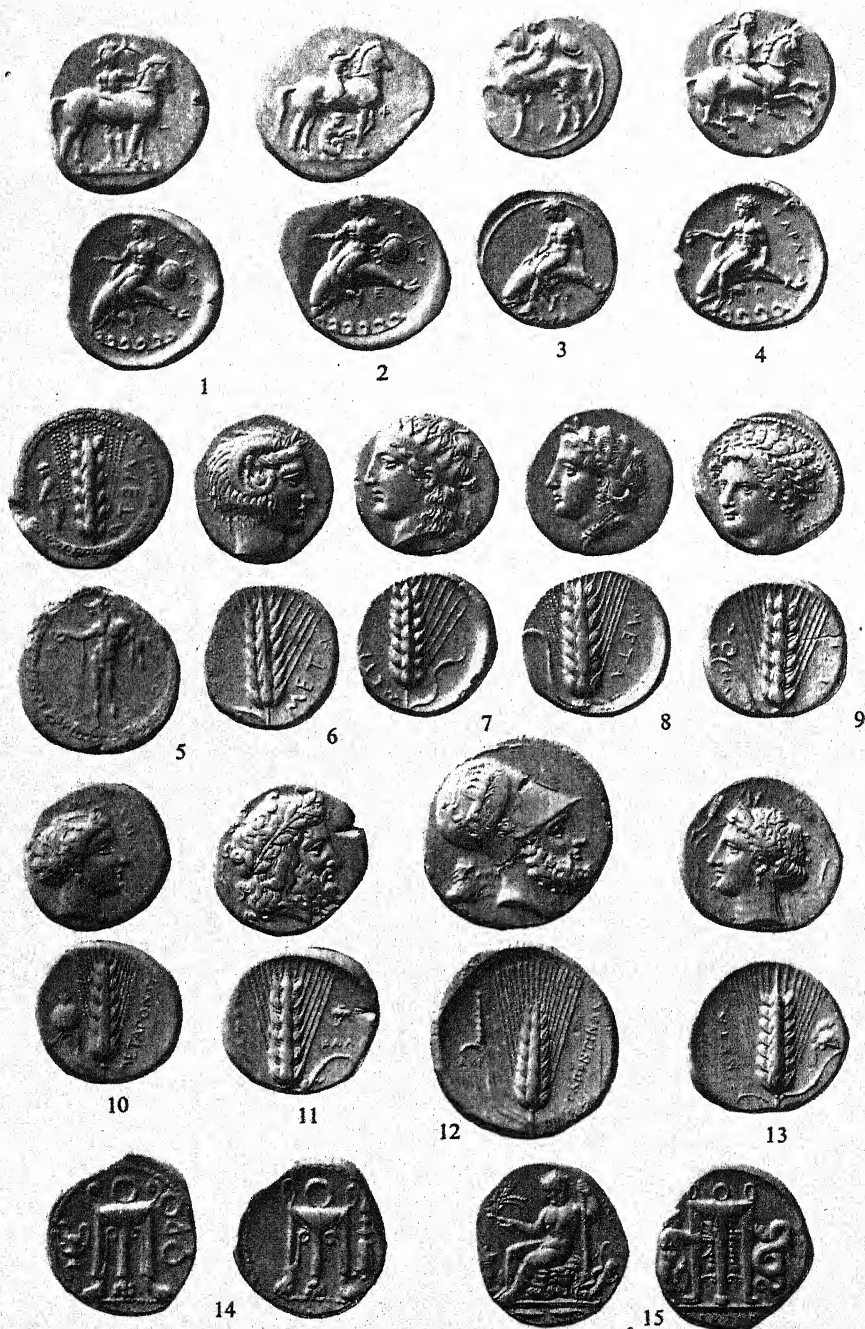


CYZICUS (1-14); AMPHIPOLIS (15-17)





CORINTH (1); AMBRACIA (2-5); CORCYRA (6-8); TARENTUM (9-15)





RHEGIUM (1, 2); TERINA (3-5); NEAPOLIS (6-8); NOLA (9);
CUMAE (10-14); ETRURIA (15-17)



1

2

3

4



5

6

7

8



9

10

11

12



1

2

3



4

5

6



8



7

9

10

11



SYRACUSE (1, 3); LEONTINI (2); GELA (4, 5); HIMERA (6, 7);
SELINUS (8-10)



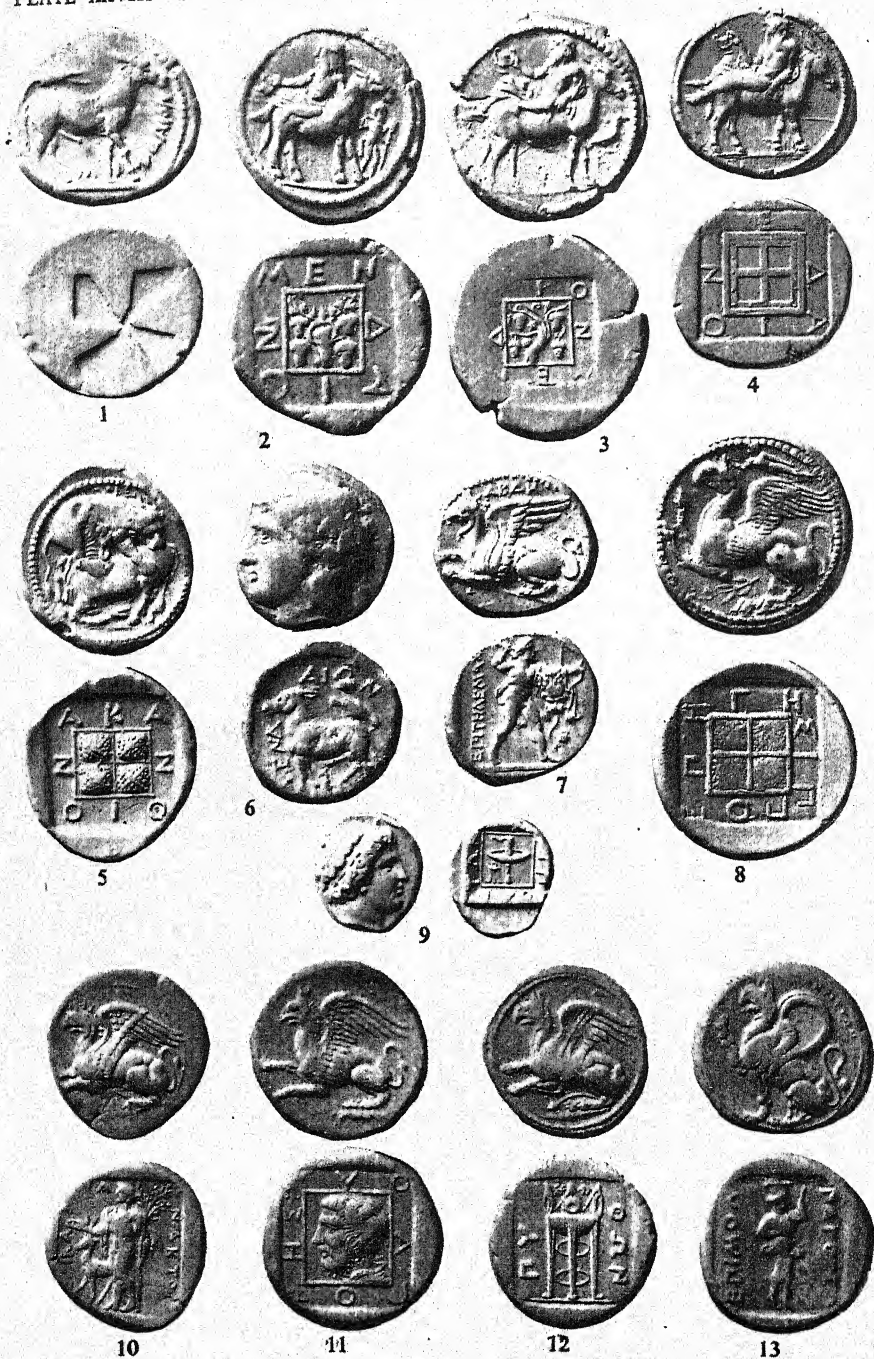
SEGESTA (1-3); CAMARINA (4-6); AETNA-CATANA (7, 8, 10);
NAXOS (9)



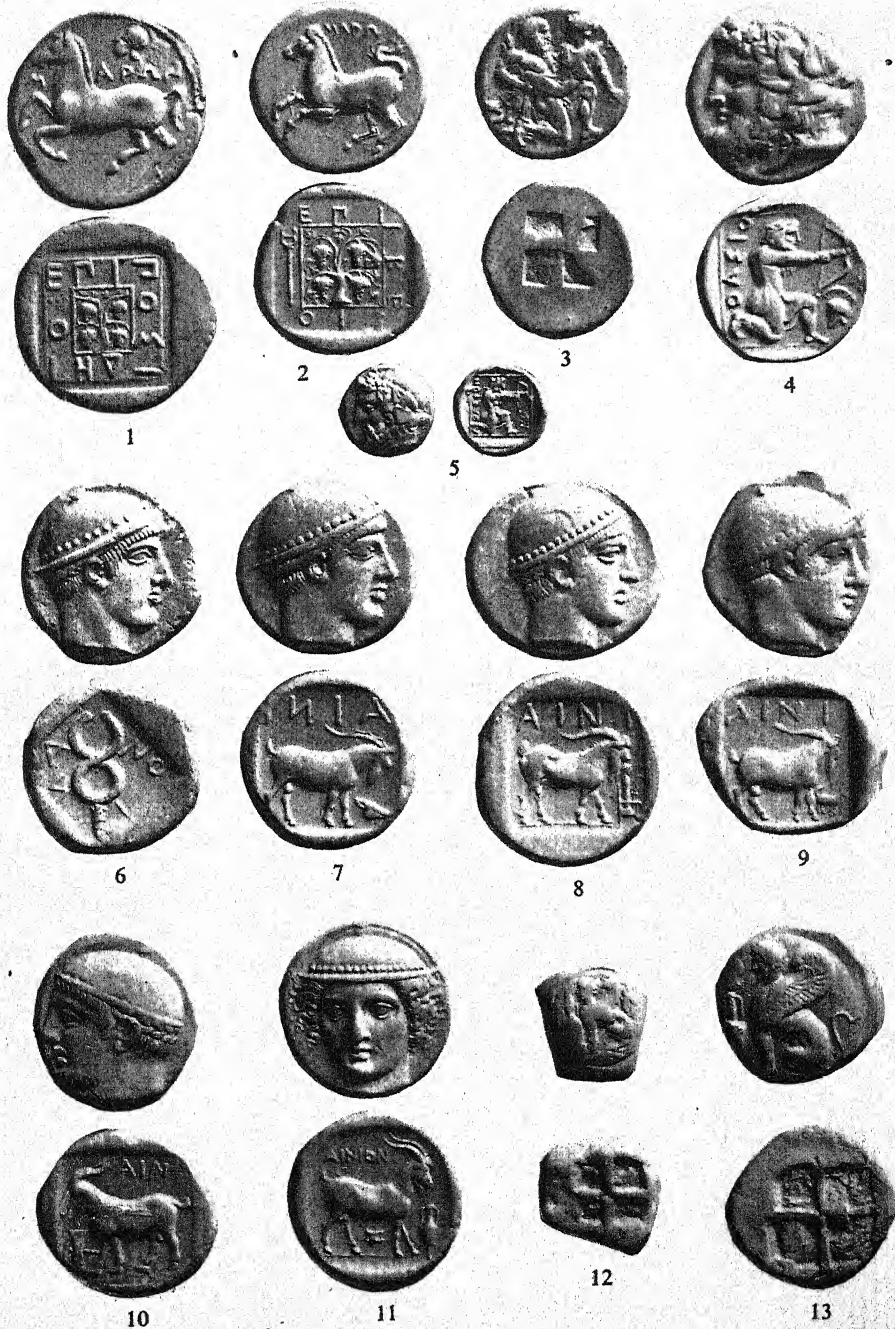
CATANA (1-4); ZANCLE-MESSANA (5-7); ACRAGAS (8-11)



SICELIOTES (1-4); PUNIC COINS (5-7); ATHENS (8-11); MACEDONIAN
KINGS (12-14); SCIONE (15)



MENDE (1-4, 6); ACANTHUS (5); AMPHIPOLIS (9);
ABDERA (7, 8, 10-13)



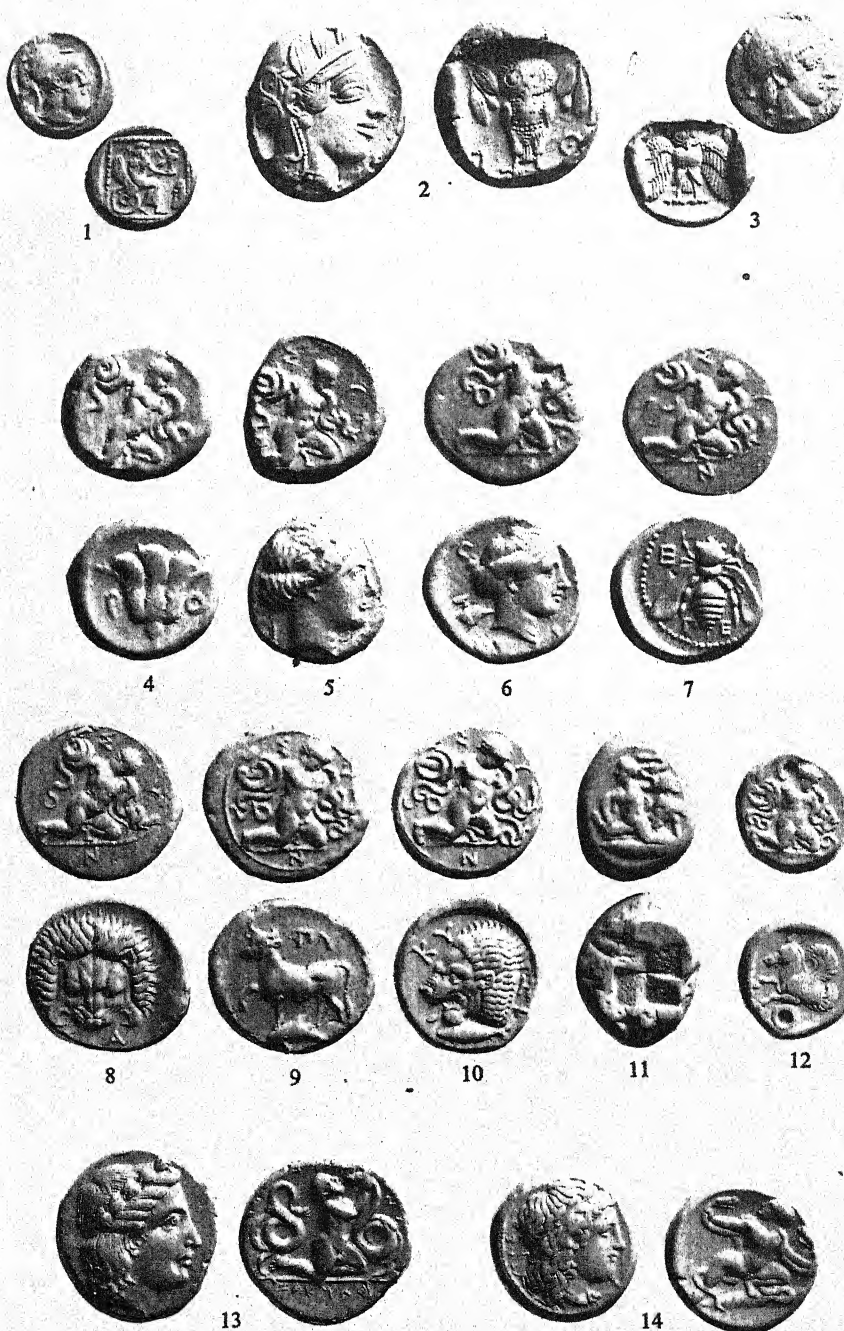
MARONEA (1, 2); THASOS (3-5); AENUS (6-11); CHIOS (12, 13)



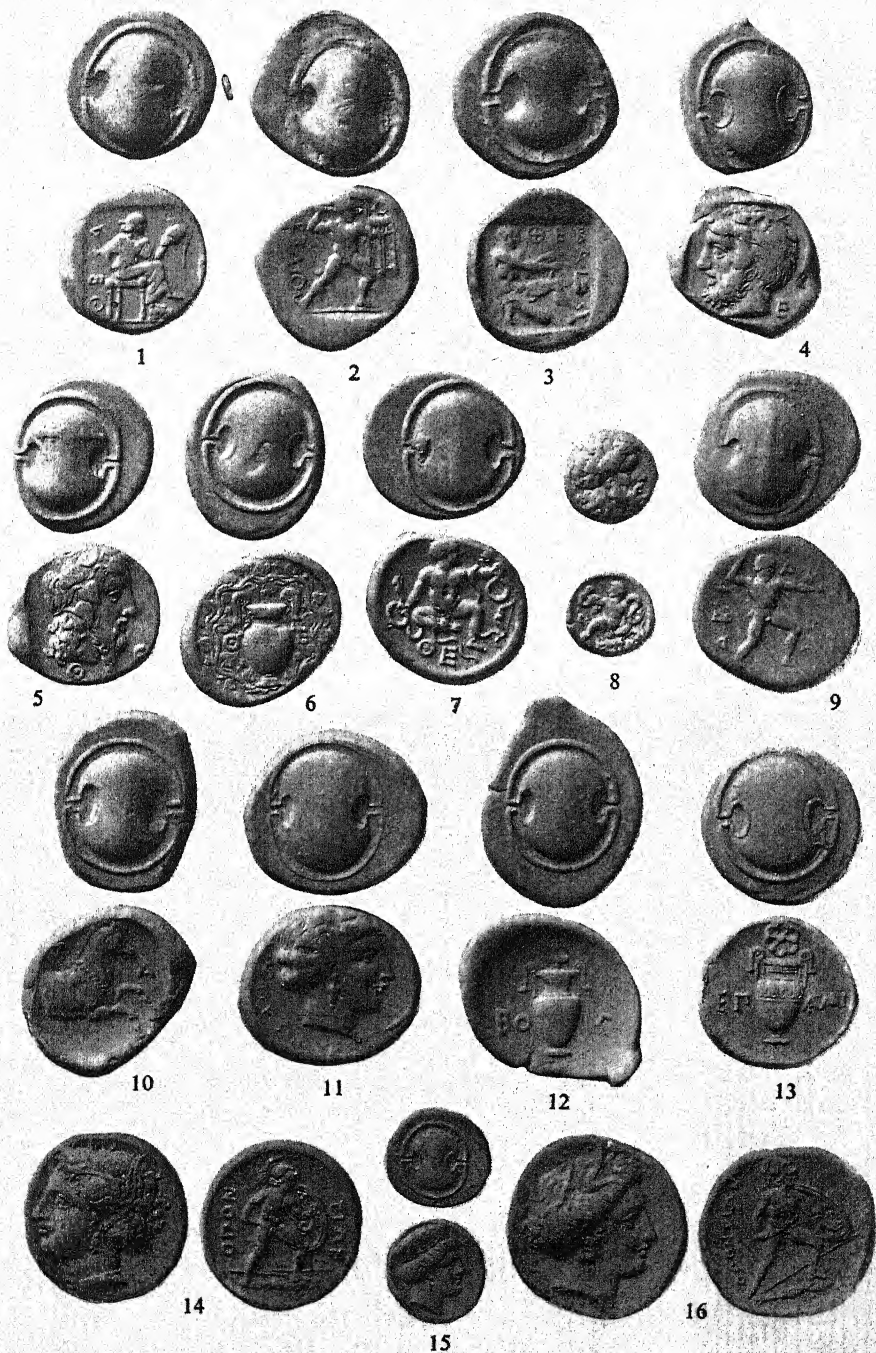
CHIOS (1); SAMOS (2-5); EPHEBUS (6); COS (7); CNIDUS (9-12);
RHODES (8, 13-15)



LYCIA (1-6); SIDE (7, 8); CYPRUS (9-16)



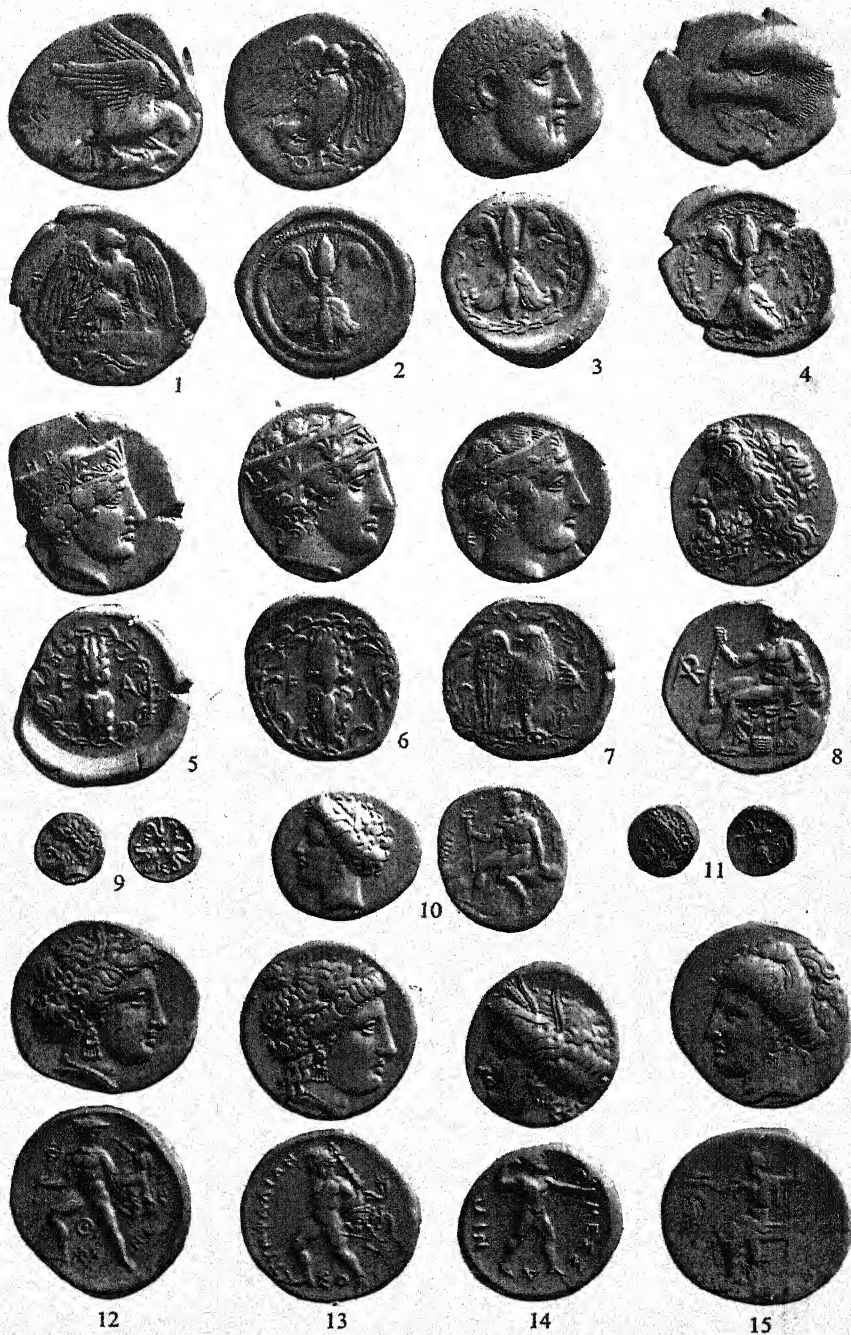
PHILISTIA (1-3); MARITIME LEAGUE (4-12); ZACYNTHUS (13);
CROTON (14)



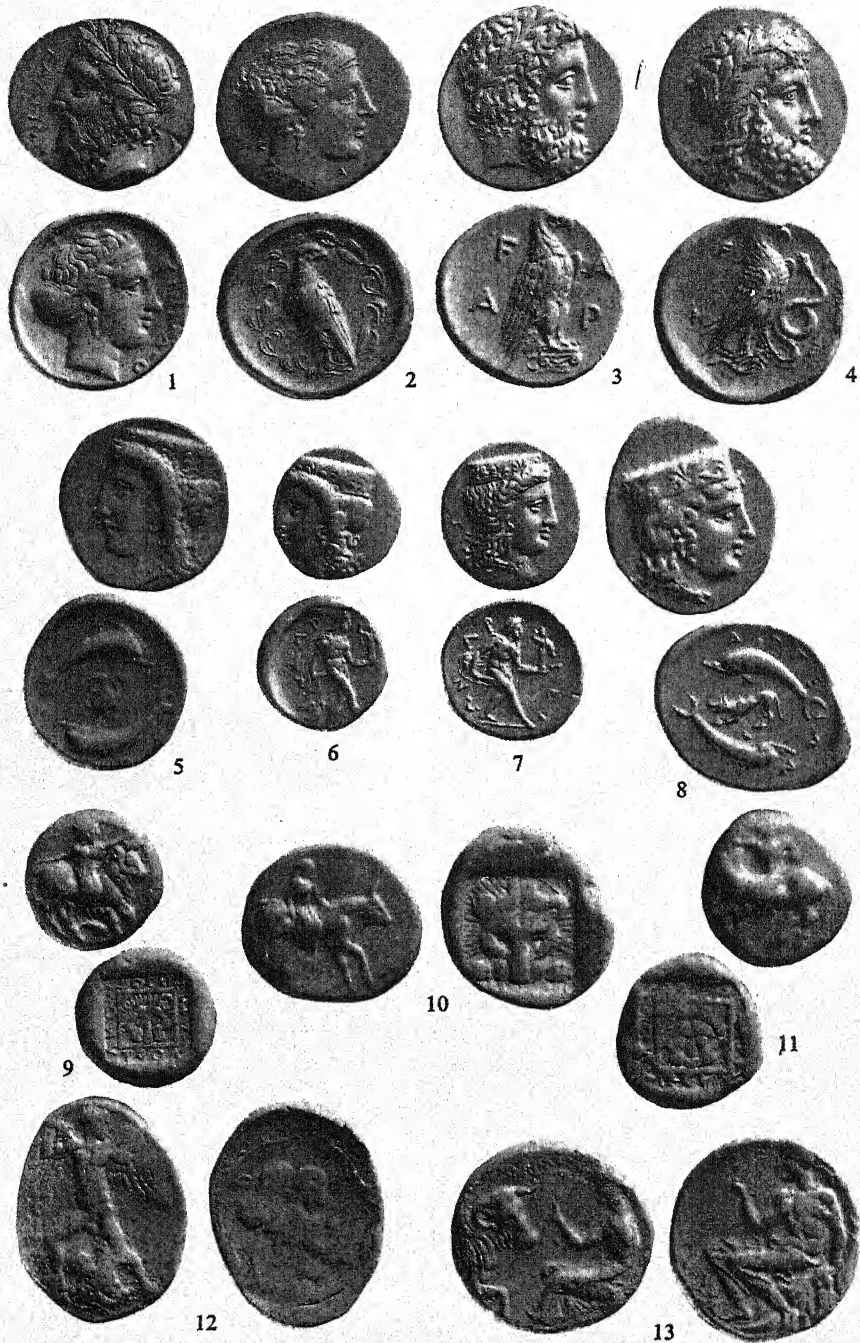
BOEOTIA (1-13, 15); OPUS (14, 16)



PHOCIS (1-4); THESSALY (5-15); AEGINA (16, 17);
SICYON (18-20)



OLYMPIA (1-7, 9, 11); ARCADIA (8, 10, 12, 13); MESSENE (14);
ACHAIA (15)





1

2

3

4



5

6

7

8



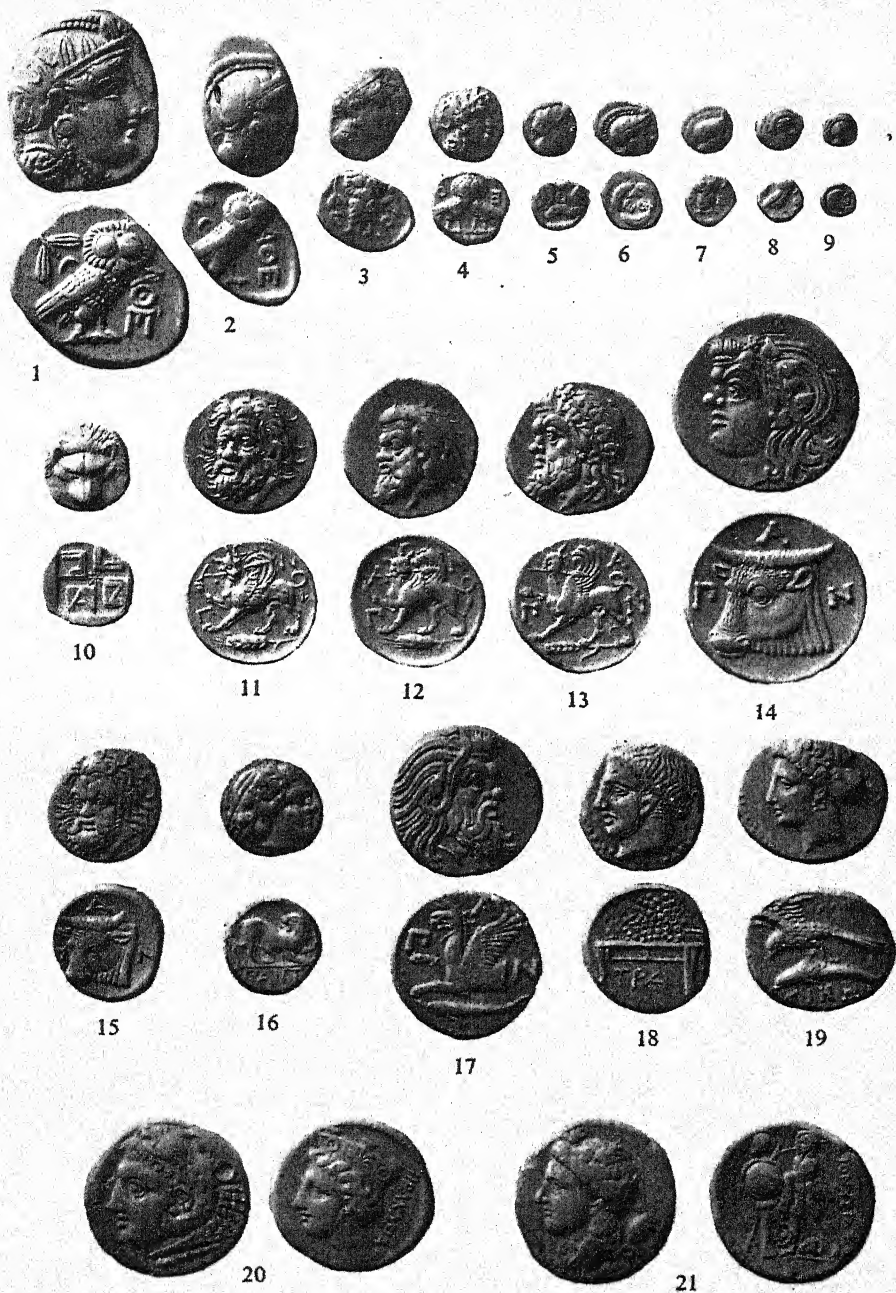
9

10

11

12





ATHENS (1-9); PANTICAPAEUM (10-17); TRAPEZUS (18);
SINOPE (19); HERACLEA (20, 21)



1



2



3

OLBIA



BYZANTIUM (1); CALCHEDON (2); CYZICUS (3); ABYDUS (4-6);
LAMPISACUS (7-11); CLAZOMENAE (12, 13); PHONICIA (14-17)



CYRENAICA (1-9, 11); CILICIA (10, 12-15)



1.



2



3



4



5



6



7



8



9



10



11



12





1

2

3



5

6

7



4



8

9

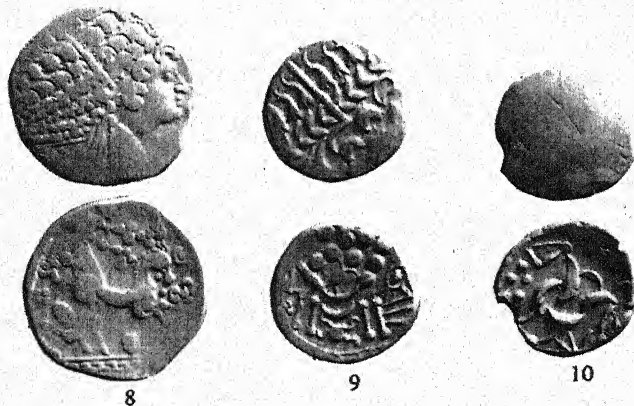
10



SICILY (1-10); TARENTUM (11-15); MASSALIA (16, 17); RHODE (18)



AMYNTAS (1); CHALCIDIAN LEAGUE (2-5); PHILIP II (7-14);
CRENIDES (6); DELPHI (15)



PHILIPPEIOI AND 'COPIES



1

2

3

4



5

6

7

8



9



10

11

12

13



1



2



3



4



5



6



7



8



9





1

2

3

4



5

6

7

8



10



9

12

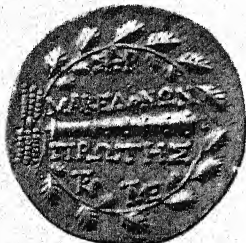
11



1

2

3



4

5

6



7

8



1

2

3



4

5

6



7

8

9



1

2

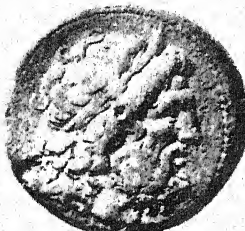
3



4

5

6



7

8

9





BACTRIA AND NORTH-WEST INDIA



1

2

3

4



5

6

7



8

9

10



PONTUS (1-3); BITHYNIA (4); PERGAMUM (5-7); ASIA MINOR (8, 9)



1

2

3



4

5

6

7



8

9

10



1

2

3



4



6



5



7



8



PTOLEMIES



SYRACUSE (1-5, 9-16); CARTHAGINIANS (6); TARENTUM (7, 8)



1

2

3

4



5

6

7



8

9

10

11

12



13

14

15

SYRACUSE (1); CARTHAGINIANS (2, 3, 5-7); ITALY (4, 8-12); RHODES (13-15)



RHODES (1, 2); AETOLIA (3-5); SPARTA (6-8); ACHAEA (9-11);
ATHENS (12-14)



1

2

3

4



5

6

7

8



9

10

11

12



1



2



3



4



5



6